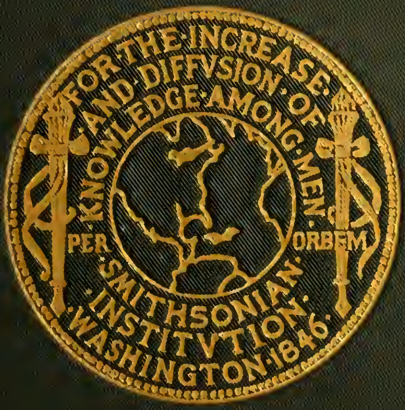
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MONOGRAPH OF THE WEST INDIAN BEETLES OF THE FAMILY STAPHYLINIDAE

BY

RICHARD E. BLACKWELDER

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The present work forms No. 182 of the *Bulletin* series.

Alexander Wetmore,
Assistant Secretary, Smithsonian Institution.

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MONOGRAPH OF THE WEST INDIAN BEETLES OF THE FAMILY STAPHYLINIDAE

By Richard E. Blackwelder

INTRODUCTION

For many years the West Indian Islands have been a place of unusual interest to American naturalists and those of many other countries as well. The list of entomologists who have studied the insects of the West Indies is long, and several of our large museums have sponsored such studies. The Smithsonian Institution, through the Walter Rathbone Bacon Scholarship and other means, has conducted several investigations of the fauna of the islands, but until the present study was undertaken none had been concerned with the insects of that region. The Walter Rathbone Bacon Scholarship is administered by the Smithsonian Institution for the study of the fauna of the regions outside of the United States, and in 1935 it was awarded to me for the purpose of studying the Staphylinidae of the West Indies.

The program of study that was followed involved the collecting of Staphylinidae on each of the islands from Cuba to Trinidad; the examination of all local collections; the study of types in the British Museum and the collection of Dr. Malcolm Cameron; the mounting, labeling, and sorting of the collections assembled; the identification of the species; and the preparation of a report, to include a systematic revision of the family as it occurs in the West Indies. In pursuance of this plan, I spent 21 months in the islands collecting specimens and data, a month in London studying types, and 14 months at the United States National Museum preparing and studying the collections. In addition, some time was spent on the manuscript during 1938–40, and after my return to the National Museum in July 1940, this paper occupied most of my time for 12 months.

The number of specimens of Staphylinidae collected was between 45,000 and 50,000. In addition to these, approximately 3,800 specimens from the West Indies were examined in the British Museum, over 400 in Dr. Cameron's collection, several hundred in the American Museum of Natural History, over 1,600 from the Museum of

Comparative Zoology, and about 1,500 in the United States National Museum. Several smaller collections were also studied, yielding valuable additions to the series. These are listed in a later paragraph. For comparisons and the drawing up of keys and diagnoses many specimens from other parts of the New World were studied. These were principally in the United States National Museum but were partly from the collections mentioned above.

The study has included 91 genera (6 of them new) and 468 species (exclusive of the Aleocharinae). Of these, 329 species were represented by type material in some of the collections examined. New species (which were also included in the above 329) numbered 212. We collected at least 179 species in the West Indies, including nearly half of the 212 new species. Only 34 species were not represented in material examined by me, and about half of these were in genera that were not studied in detail (*Palaminus* in particular).

ACKNOWLEDGMENTS

This study was made possible by the Smithsonian Institution through the Walter Rathbone Bacon Scholarship and the facilities of the United States National Museum. It was carried out with the assistance of Dr. Edward A. Chapin, curator of the division of insects, without whose constant advice and encouragement it could never have been completed in the time available.

It would have been impossible to make positive identifications of many species, or to have included many others at all, without the cooperation of the British Museum (Natural History). G. J. Arrow, curator of Coleoptera, kindly made it possible for me to study the numerous types in the collections of the Museum and was of special help in arranging for the loan of a considerable number of specimens. This enabled me to compare them directly with the series at the United States National Museum and to draw up descriptions for which there was not time during the brief stay in England. Dr. W. R. Thompson, of the Imperial Institute of Entomology, was also of much help to me during my studies at the British Museum.

Many species of West Indian Staphylinidae have been described by Dr. Malcolm Cameron, who lives in a suburb of London. A large number of the types of these species are in his own extensive collection. Dr. Cameron generously allowed me to study these, giving much of his time to assist me. The study of this collection saved me from many omissions and mistakes, and the privilege is gratefully acknowledged. Dr. Cameron in addition generously donated a large series of specimens from among his duplicates to aid the work.

Before I commenced this study Dr. P. J. Darlington, of the Museum of Comparative Zoology at Cambridge, Mass., had prepared a revision of one large genus of staphylinids in the West Indies. His paper has now been published, and his generosity in depositing paratypes in the United States National Museum has greatly aided me in understanding his new species and key.

An extensive collection of the Staphylinidae of Cuba has been made by Alexander Bierig, of Habana, Cuba. It was not possible for me to examine this collection, but Sr. Bierig generously sent nearly a hundred "cotypes" of his new species to the United States National Museum in exchange. These specimens, with a few from the same source that were already in my own collection, have enabled me to identify with certainty most of Sr. Bierig's species. Without this help it would have been impossible to have included Cuba with a degree of completeness corresponding to that of the other islands. Many more species and many more records doubtless are now in Sr. Bierig's collection, but I have not had an opportunity to study them.

Other collections in which West Indian species have been examined or from which specimens were borrowed include the Museum of Comparative Zoology at Cambridge, Mass.; the American Museum of Natural History in New York; the Oxford University collection (Cayman Island specimens collected by G. B. Lewis); the Department of Agriculture at Hope Gardens, Kingston, Jamaica; the Service Technique at Damien, Haiti; the Rio Riedras Experiment Station in Puerto Rico; the School of Agriculture of the University of Puerto Rico at Mayagüez; and the private collection of the late Dr. S. T. Danforth, of Mayagüez, P. R. In addition, specimens were received by gift from R. G. Oakley in Puerto Rico, Dr. A. M. Adamson and the late Prof. F. W. Urich in Trinidad, Dr. R. W. E. Tucker in Barbados, Dr. H. E. Box in St. Kitts, Antigua, and St. Lucia, and Harry Beatty in St. Croix. To all these institutions and friends I am much indebted for these and other kindnesses.

During the course of the collecting trip many persons were of great assistance in various ways. Of these I wish to mention especially the following: W. E. Edwards and Mrs. Philip A. Bovell in Jamaica; André Audant in Haiti; R. G. Oakley in Puerto Rico; Dr. F. J. Pound, Dr. A. M. Adamson, and Prof. F. W. Urich in Trinidad; Mr. Knight and Mr. Simmons in Carriacou; Perry N. Jester, E. M. Shilstone, and Dr. R. W. E. Tucker in Barbados; Dr. H. E. Box in St. Lucia; and Harry Beatty in St. Croix. I gratefully acknowledge the assistance given so freely by these and many others.

The governments of the various islands did much to make our trip easier and more successful. With scarcely any exception the officials of all the islands, British, French, American, and independent, went out of their way to see that we had the facilities we needed, and were especially accommodating in the difficult matters of permits and other official business.

The collections received for study from the Museum of Comparative Zoölogy were composed largely of specimens taken by Dr. P. J. Darlington during several trips to Cuba, Jamaica, Hispaniola, Puerto Rico, and Trinidad in search of Carabidae. The Cuban and Trinidad series were supplemented by the collections of N. A. Weber and others. This large collection contained an unusually high proportion of interesting species, perhaps because collecting was confined chiefly to high mountains. Among these I found 135 species of which 91 were entirely new to me. In several cases these form the only record of a genus from the West Indies. This collection serves to emphasize the fact that the 468 species so far known from the islands probably do not constitute half of the species actually occurring there. It is likely that many of the additional species will be discovered in ground cover and other decaying vegetable debris, since we probably now know a relatively large percentage of the species occurring in dung, decaying fruit, and rotten logs.

ITINERARY

Collecting was carried on in the islands continuously from June 1935 to March 1937. I was accompanied by Mrs. Blackwelder, who frequently assisted in the collecting, and was occasionally joined by local entomologists or naturalists, who were of great assistance in finding suitable localities and in collecting specimens. During the final 6 weeks of the trip (in Jamaica) we were joined by Dr. Edward A. Chapin, curator of insects at the United States National Museum. Together we were able to make large additions to the collections, both of Staphylinidae and of other families as well.

The islands visited were: Cuba, Jamaica, Hispaniola (both Haiti and the Dominican Republic), Puerto Rico, St. Thomas, St. Croix, St. Kitts, Antigua, Montserrat, Guadeloupe, Dominica, St. Lucia, Barbados, St. Vincent, Carriacou in the Grenadines, Grenada, Tobago, and Trinidad. The only important island omitted was Martinique. In addition to these, specimens were available for the final study from the following: Bahama Islands (Nassau, Egg, Eleuthera, Harbor Islands, and Water Cay), Isle of Pines, Grand Cayman, Mona Island, Vieques, Culebra, St. John, Tortola, Martinique, and Mustique in the Grenadines. Additional records are listed from St. Bartholomew, Les Saintes, and Curaçao.

Jamaica.—June 27, 1935, to July 31, 1935 (also January 21, 1937, to March 6, 1937). Stations 1 to 20. We made our headquarters in

Kingston (see map No. 3) and made trips to each part of the island. Two or three day stops were made at Derry near Balaclava and at Montego Bay. The extreme western end of the island was not visited, nor were the higher parts of the Blue Mountains. (For the number of species collected see the total under the return visit in 1937.)

W. H. Edwards, the government entomologist, kindly put his laboratory and the extensive botanical gardens at our disposal. The entomological collections contained only one species of Staphylinidae, *Belonuchus gowdeyi* Bernhauer (= *Belonuchus gagates* Erichson). (See also return visit to Jamaica in 1937.)

Haiti.—August 1, 1935, to September 1, 1935. Stations 21 to 31. We made our headquarters at Port-au-Prince (see map No. 4) and encountered some difficulty in reaching other parts of the country because of poor roads, the scarcity of safe drinking water, and the difficulties of the Creole language. A 2-day trip was made to an elevation of nearly 7,000 feet on Morne La Selle in the southeast. A trip to the northern part of the country was interrupted by an accident and abandoned. Collections were made principally in the mountains south and west of Port-au-Prince. The number of species of Staphylinidae (exclusive of the Aleocharinae) was 12.

André Audant, entomologist at the Service Technique at Damiens, kindly put his laboratory and collection at my disposal. A small series of Staphylinidae was borrowed for later study.

Dominican Republic.—September 1, 1935, to September 17, 1935. Stations 32 to 42. I first made headquarters at Santiago de los Caballeros (see map No. 4) in the north-central portion. From here short trips were made into the surrounding valleys, but the mountains were not accessible with my limited equipment. The remaining time was spent in Santo Domingo (since renamed Ciudad Trujillo), principally on official matters. The number of species of Staphylinidae collected (exclusive of the Aleocharinae) was seven.

Puerto Rico.—September 18, 1935, to October 17, 1935 (also December 7, 1936, to January 20, 1937). Stations 43 to 65. We made our headquarters in San Juan (see map No. 5) and were able to cover the northern, eastern, and southeastern portions from there. A 5-day trip was made to Mayagüez, from where we were able to visit various points in the western and south-central regions. (For the number of species collected see the total under the return visit in 1936–37.)

R. G. Oakley, a plant quarantine inspector at Mayagüez, took me out to several specially good collecting localities where we found a great many interesting species. Mr. Oakley (since transferred to Guam and later to Hawaii) has done some fine collecting in western and southern Puerto Rico.

The late Prof. S. T. Danforth, of the College of Agriculture of the University of Puerto Rico at Mayagüez was of much assistance. His knowledge of conditions and collecting in the Lesser Antilles enabled us to make the most of our months spent in those islands. Professor Danforth had a considerable collection of Puerto Rico Coleoptera, although his principal interest was in birds. More than a hundred Staphylinidae were examined in his collection, and permission was obtained to borrow these when we returned to Puerto Rico. (See return visit in December 1937.)

Dr. G. N. Wolcott, entomologist at the Rio Piedras Experiment Station, kindly presented us with a copy of his new "Insectae Borinquensis," which proved to be useful later on. He also permitted us to borrow the few staphylinids in the collection of the station.

St. Thomas.—October 18, 1935, to October 22, 1935. Stations 66 to 68. We stayed for 3 days between boats at Charlotte Amalie (called also St. Thomas) (see map No. 6), doing a little collecting about town and making one trip around the eastern and southern parts of the island. The number of species of Staphylinidae collected (exclusive of the Aleocharinae) was three.

Guadeloupe.—October 24, 1935, to November 16, 1935. Stations 69 to 91. We made our headquarters at Matouba, above St. Claude on Basse Terre (see map No. 10), for 3 weeks and later in Pointe-a-Pitre on Grande Terre for 1 week. From the former we collected in the mountain valleys at about 3.000 feet and made trips along the rugged western coast and around Basse Terre to the east and northern coasts. From Pointe-a-Pitre we were able to circle the southern part of Grande Terre. The number of species of Staphylinidae collected (exclusive of the Aleocharinae) was 26.

Trinidad.—November 19, 1935, to January 7, 1936. Stations 92 to 130. Our headquarters were in Port of Spain in the northwest corner of the island. (See map No. 19.) Although we were on this important island for 11 weeks, the amount of collecting accomplished was relatively small. This was due to a combination of circumstances involving a troublesome amount of rainfall and repeated delays in receiving parts of our equipment. However, collections were made in the northwest, northeast, north-central, east-central, and south-central portions of the island. Here we were first introduced to the very productive and easy collecting from rotting pods of the cocoa plant, *Theobroma cacao.* The number of species of Staphylinidae collected (exclusive of the Aleocharinae) was 48.

Dr. A. M. Adamson, professor of entomology at the Imperial College of Tropical Agriculture at St. Augustine, was very kind and helpful to us in many ways. We went collecting with him especially in the north-central area, and he generously gave us specimens of Staphylinidae that he had collected elsewhere.

F. W. Urich, professor-emeritus at the Imperial College of Tropical Agriculture but at that time living in Port of Spain (and since deceased), was of great service in demonstrating to us in the field his methods of collecting termite guests, many of which are Staphylinidae. These lessons were invaluable to us, and we profited greatly by our visits with him. He kindly presented us with a considerable number of termite guests he had previously collected in Trinidad.

Dr. F. J. Pound, agronomist of the Department of Agriculture, was of great service in collecting. With him I visited several productive localities, especially in the northeast and east-central parts of the island. It was on these trips that I found out how attractive to staphylinids are the rotting cocoa pods. Our trip to the south coast was also very productive. This region was devastated by Trinidad's only bad hurricane (in 1933), and the fallen immortelle trees proved to be good collecting spots.

Tobago.—January 1, 1936. Stations 116 to 123 (and 129). Before we left Trinidad I made a brief trip to Tobago (map No. 18) by taking the night boat on December 31 and returning by the night boat on January 1. This gave me a full day on the island. I collected principally along the southern coast, with more than the usual 1-day's success. The number of species of Staphylinidae collected (exclusive of the Aleocharinae) was 11.

Grenada.—January 8, 1936, to January 30, 1936. Stations 131 to 140 and 150 to 163. We made our headquarters in St. Georges on the southwest coast (see map No. 17) and found it readily possible to visit most parts of the island from there. Collecting was done principally in the southern and eastern parts of the island. Special efforts were made to find termite guests such as were abundant on Trinidad but without success. The number of species of Staphylinidae collected (exclusive of the Aleocharinae) was 21.

Carriacou.—January 16, 1936, to January 18, 1936. Stations 141 to 149. This was a side trip from Grenada requiring a day each way in transit. One whole day was available for collecting, and, because of the splendid cooperation of the Commissioner, Mr. Knight, and Mr. Simmons, of the Department of Agriculture, I was able to collect profitably in several parts of this tiny island. (See map No. 16.) The number of species of Staphylinidae collected (exclusive of the Aleocharinae) was six.

St. Vincent.—February 1, 1936, to February 25, 1936. Stations 164 to 186. We made our headquarters in Kingstown, the only real town in the island. (See map No. 15.) Only the coastal areas of the southwestern, southern, and eastern parts of the island were accessible to us, except for one trip to the volcano Soufrière, where collecting was not good. The very dense and rugged interior of the island is uninhabited and inaccessible except with extensive equipment and preparation. This region is probably the wildest and most inaccessible one in the islands. We found it impracticable to visit the northern Grenadines (Bequia, Union, Mustique, etc., map No. 16), which form a dependency of St. Vincent. The number of species of Staphylinidae collected (exclusive of the Aleocharinae) was 19.

Barbados.—February 26, 1936, to March 22, 1936. Stations 187 to 204. Our headquarters were in Bridgetown, the only town of consequence. From here a fine system of roads radiates to every part of the island. In spite of these we found collecting difficult and unproductive. Most of the island is covered with sugarcane, and situations in which staphylinids were found were few. The number of species, as well as the number of specimens, was less than on most of the islands. The number of species of Staphylinidae collected (exclusive of the Aleocharinae) was 16.

St. Lucia.—March 23, 1936, to May 17, 1936. Stations 205 to 234. We made our headquarters for a month at Castries on the northwest coast and later for another month near Soufrière on the southwest coast. (See map No. 13.) Collecting was not good in the northern portion except when we penetrated into the dense forest in the mountains. In the vicinity of Soufrière, however, we found some of the best and easiest collecting of the trip. Here we made some of our largest catches from the rotting cocoa pods and unusually large numbers of various kinds of insects in other situations. Two brief visits were made to the eastern coast. The number of species of Staphylinidae collected (exclusive of the Aleocharinae) was 44.

Dr. Harold E. Box, at that time entomologist of the Colonial Development Fund, had his headquarters in Castries. He put his laboratory at my disposal, took me on several collecting trips into the interior of the island, and generously donated staphylinids he had collected, especially from sugarcane trash. He also sent specimens from Antigua after our return to Washington. Among these latter were some interesting species, of which several were new.

Dominica.—May 18, 1936, to July 12, 1936. Stations 235 to 261. Our headquarters were in Roseau on the southwest coast. (See map No. 11.) From here we were able to collect along the southern half of the west coast, across the southwestern corner of the island, and in the high central valley. Unusually wet weather and certain other factors made us considerable trouble, but the longer stay enabled us to make considerable collections. Near the end of our stay I made a 4-day trip by boat to the northern part of the island. This proved to be the more interesting region as well as a pleasanter one. It would have justified a much longer stay. The number of staphylinid species collected (exclusive of the Aleocharinae) was 26.

Montserrat.—July 13, 1936, to July 27, 1936. Stations 262 to 271. On this very small island we stayed only about 2 weeks, stopping at Plymouth, the only town. (See map No. 9.) Several parts of the island were easily reached, but collecting was done principally in the coastal areas. The number of species of Staphylinidae collected (exclusive of the Aleocharinae) was 15.

Antigua.—July 27, 1936, to September 28, 1936. Stations 272 to 295. Our headquarters were in St. Johns on the northern coast (see map No. 8) and from here we were able to reach most parts of the island. We found collecting rather monotonous and the island, physically, not very interesting. The collections include rather fewer species than usual, although not lacking in specimens. The few higher parts of the island were visited only briefly. The numbers of species of Staphylinidae collected (exclusive of the Aleocharinae) was 22.

St. Kitts.—September 30, 1936, to October 27, 1936. Stations 296 to 314. We made our headquarters at Basseterre on the south coast. (See map No. 7.) This is a small island that can be readily circled in a few hours. The coastal regions were rather dull collecting, yielding large numbers of comparatively few species. The central mountainous area is more difficult to reach but yielded a few nice things. We found it impracticable at that time to visit Nevis or the other neighboring islands. The number of species of Staphylinidae collected (exclusive of the Aleocharinae) was 11.

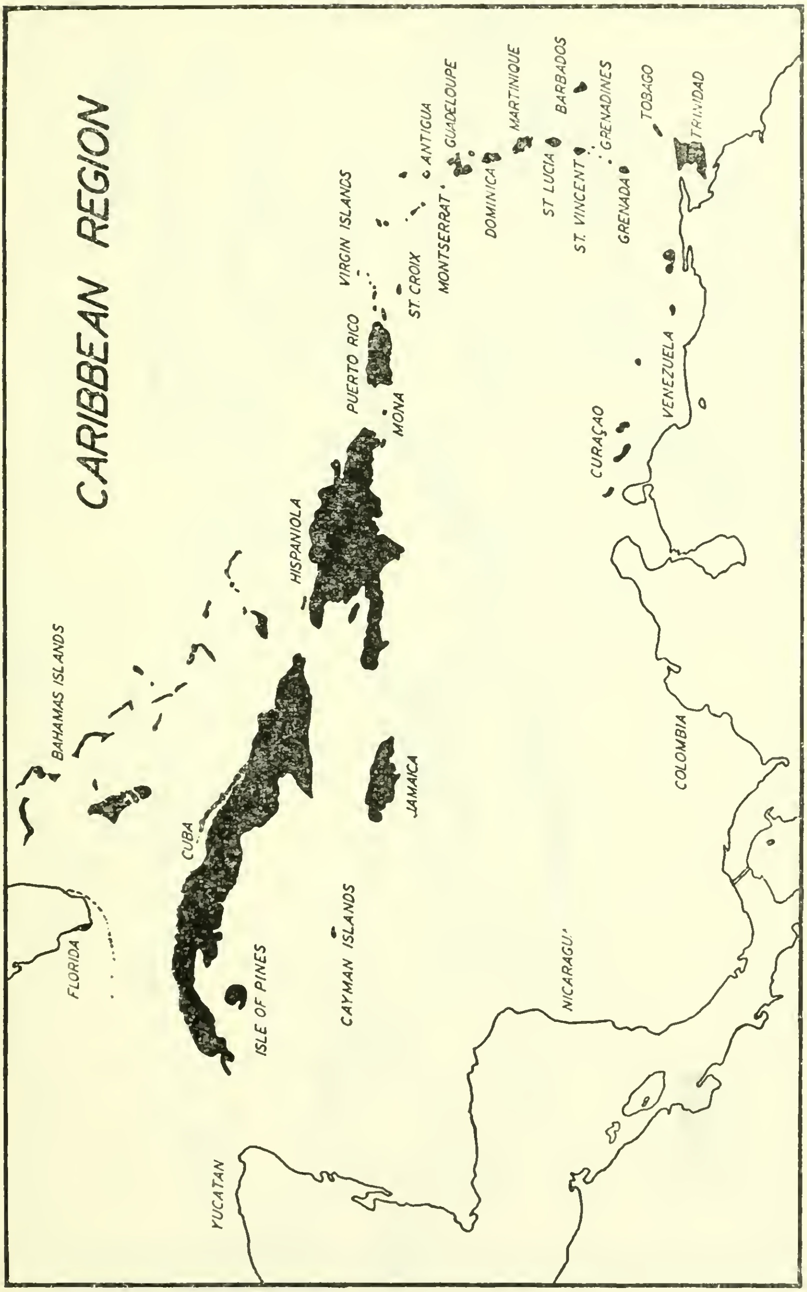
St. Croix.—October 28, 1936, to December 6, 1936. Stations 315 to 344. Our headquarters were at Frederiksted on the western coast of this small island. (See map No. 6.) It is rather low but has more varied collecting situations than some of the larger islands. All parts of the island except the extreme east were visited, and a larger number of species of Staphylinidae (35, exclusive of the Aleocharinae) was taken than on almost any previous small island.

Harry Beatty, connected with the Christiansted hospital on mosquito control and other projects, is an enthusiastic naturalist. I spent many days with him collecting in situations that I might have missed alone. It was on his automobile that we first tried out the large net for collecting at dusk, and many specimens were taken in this way. Mr. Beatty also presented us with specimens that he had collected, partly after we had returned to Washington.

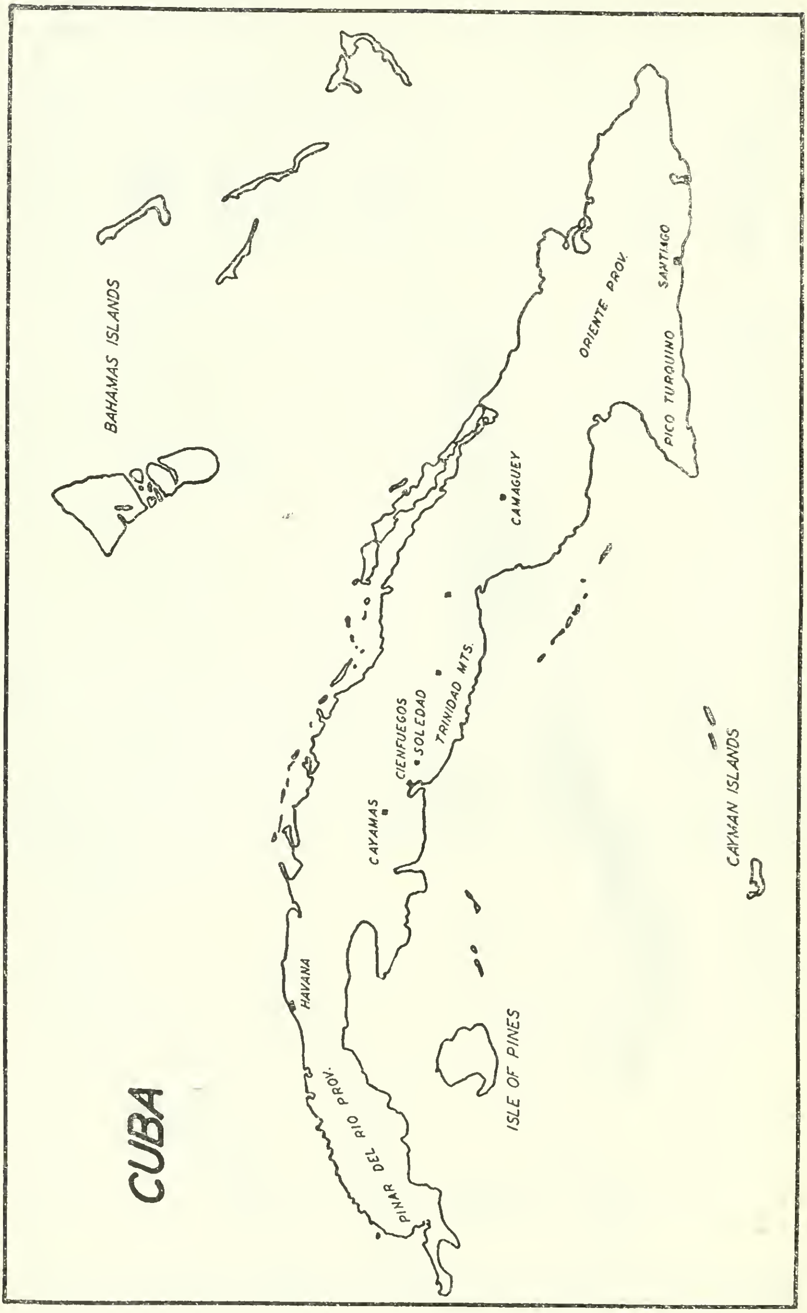
Puerto Rico.—December 7, 1936, to January 20, 1937. Stations 345 to 359. On this return visit we again made our headquarters in San Juan. (See map No. 5.) A very unusual December storm spoiled nearly 2 weeks of our time, and difficulties in obtaining transportation to Jamaica took another week. However, collecting was done in the vicinity of El Yunque Peak in rain-forest, along the southern coast, and at the extreme western end of the island. Mr. Oakley and Professor Danforth again kindly assisted in collecting and made our stay much more pleasant and profitable. The total number of species of Staphylinidae collected (exclusive of the Aleocharinae) was 54.

Jamaica.—January 22, 1937, to March 6, 1937. Stations 360 to 435 (and 444). On this return visit we again established our headquarters in Kingston but made several more prolonged stops in other parts of the island. Our principal collecting was done in the central and south-central portions and about Kingston, but visits were made also to the north coast, the eastern end of the island, and to various other parts.

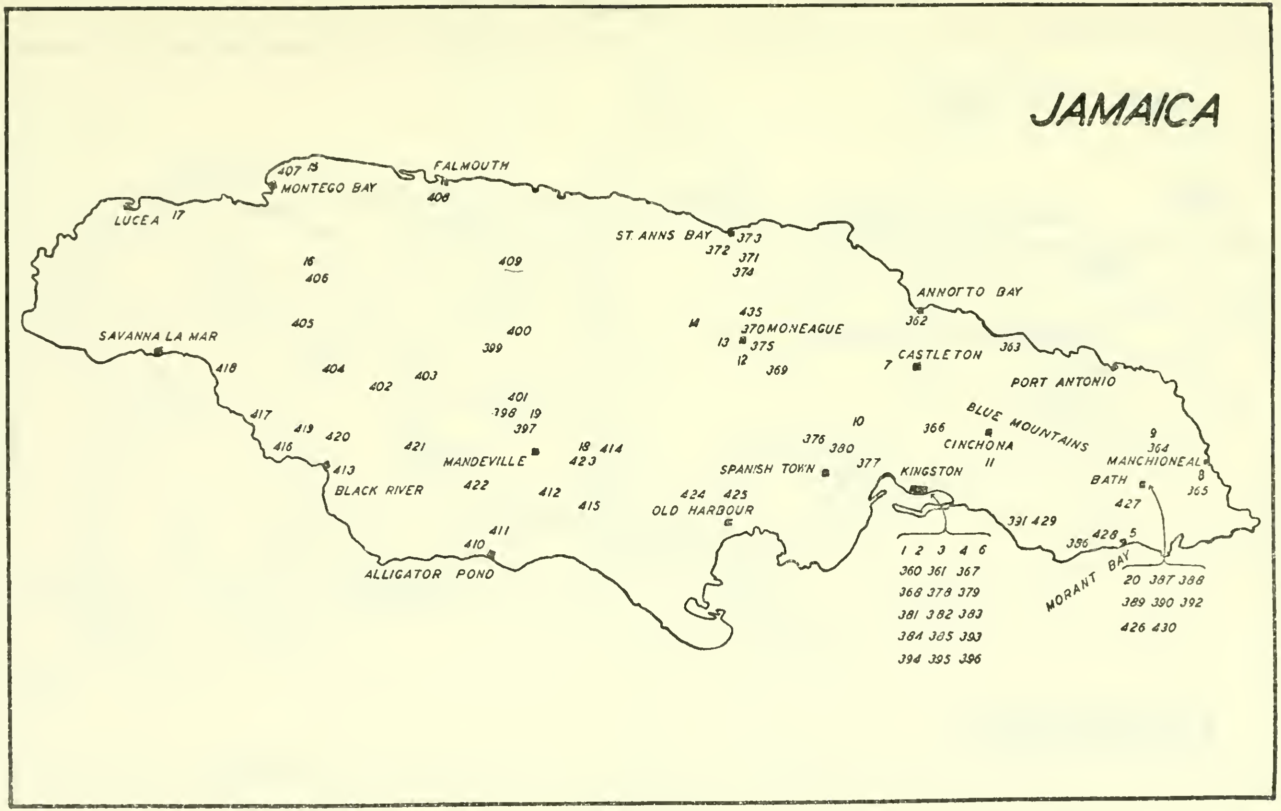
Dr. E. A. Chapin, curator of insects at the United States National Museum, joined us in Jamaica from January 27 to March 6. Intensive collecting with renewed enthusiasm resulted in the accumulation of a large collection of Coleoptera, including many thousands of Staphylinidae. Several methods of quantity collecting were employed, and these produced many previously unknown species. Because of the help of Dr. Chapin, Jamaica was much more completely collected than any other island, and we probably know a larger percentage of its species of Staphylinidae than from any other island. The total number of species collected on the island (exclusive of the Aleocharinae) was 82.


CARIBBEAN REGION
BAHAMAS ISLANDS
FLORIDA
CUBA
ISLE OF PINES
CAYMAN ISLANDS
JAMAICA
HISPANIOLA
MONA
PUERTO RICO
VIRGIN ISLANDS
ST. CROIX
MONTSERRAT
ANTIGUA
GUADELOUPE
DOMINICA
MARTINIQUE
ST LUCIA
BARBADOS
ST. VINCENT
GRENADINES
GRENADA
TOBAGO
TRINIDAD
CURAÇAO
VENEZUELA
COLOMBIA
NICARAGU
YUCATAN

Map No. 1.


CUBA
BAHAMAS ISLANDS
ORIENTE PROV.
SANTIAGO
PICO TURQUINO
CAMAGUEY
TRINIDAD MTS.
CIENFUEGOS
SOLEDAD
CAYAMAS
HAVANA
PINAR DEL RIO PROV.
ISLE OF PINES
CAYMAN ISLANDS

Map No. 2.


JAMAICA
LUCEA 17
407 15
MONTEGO BAY
FALMOUTH
408
ST. ANNS BAY
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372 371
374
ANNOTTO BAY
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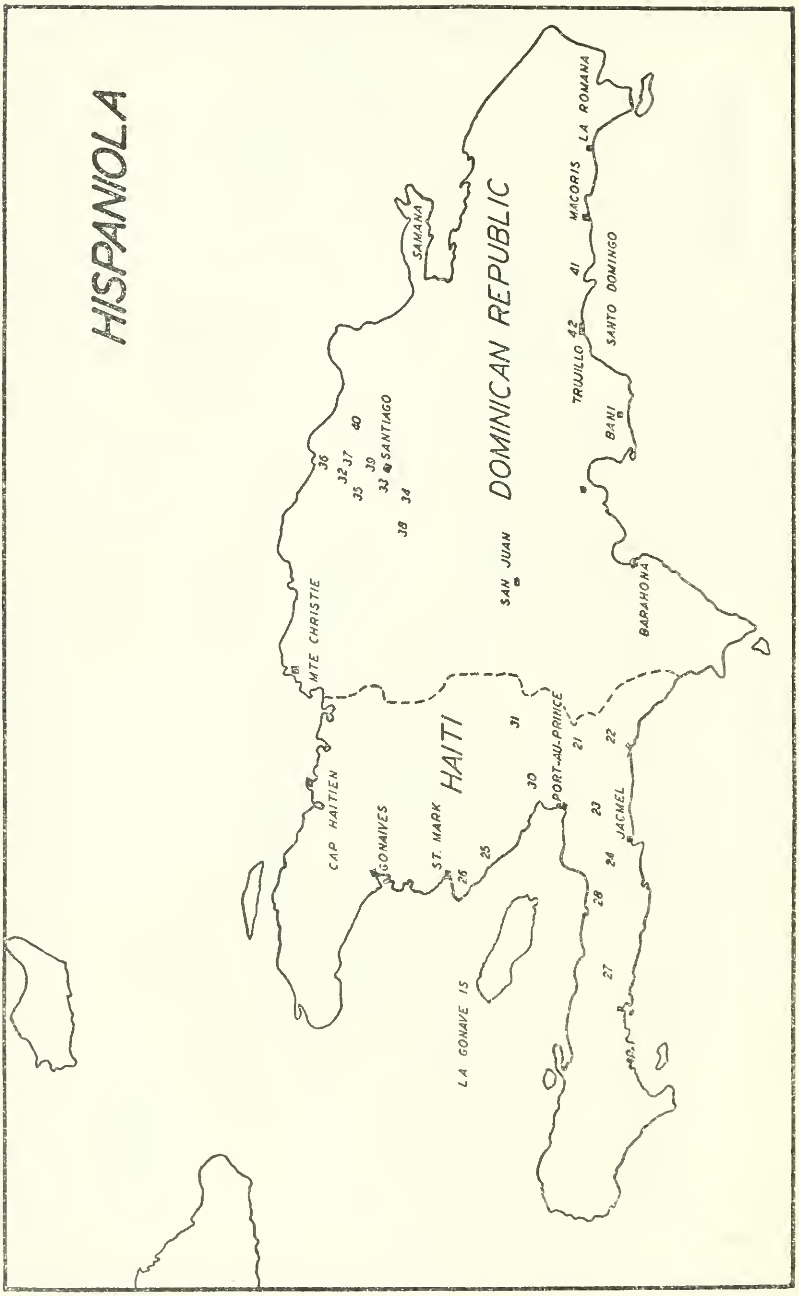
363
PORT ANTONIO
CASTLETON
7
16
406
409
405
400
399
SAVANNA LA MAR
418
404
402
403
401
398 19
397
417
419 420
416
421
413
BLACK RIVER
MANDEVILLE
18 414
423
422
412
415
411
410
ALLIGATOR POND
14
435
370 MONEAGUE
13 375
12
369
10
376 380
377
SPANISH TOWN
424 425
OLD HARBOUR
KINGSTON
366
CINCHONA
11
BLUE MOUNTAINS
1 2 3 4 6
360 361 367
368 378 379
381 382 383
384 385 393
394 395 396
331 429
9
364
MANCHIONEAL
8
365
BATH
427
356 428 5
MORANT BAY
20 387 388
389 390 392
426 430

Map No. 3.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DOMINICAN REPUBLIC
HAITI
SAMANA
LA ROMANA
MACORIS
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42
SANTO DOMINGO
TRUJILLO
BANI
36
32
37
40
35
39
33
SANTIAGO
34
38
SAN JUAN
BARAHONA
MTE CHRISTIE
CAP HAITIEN
GONAIVES
ST. MARK
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25
30
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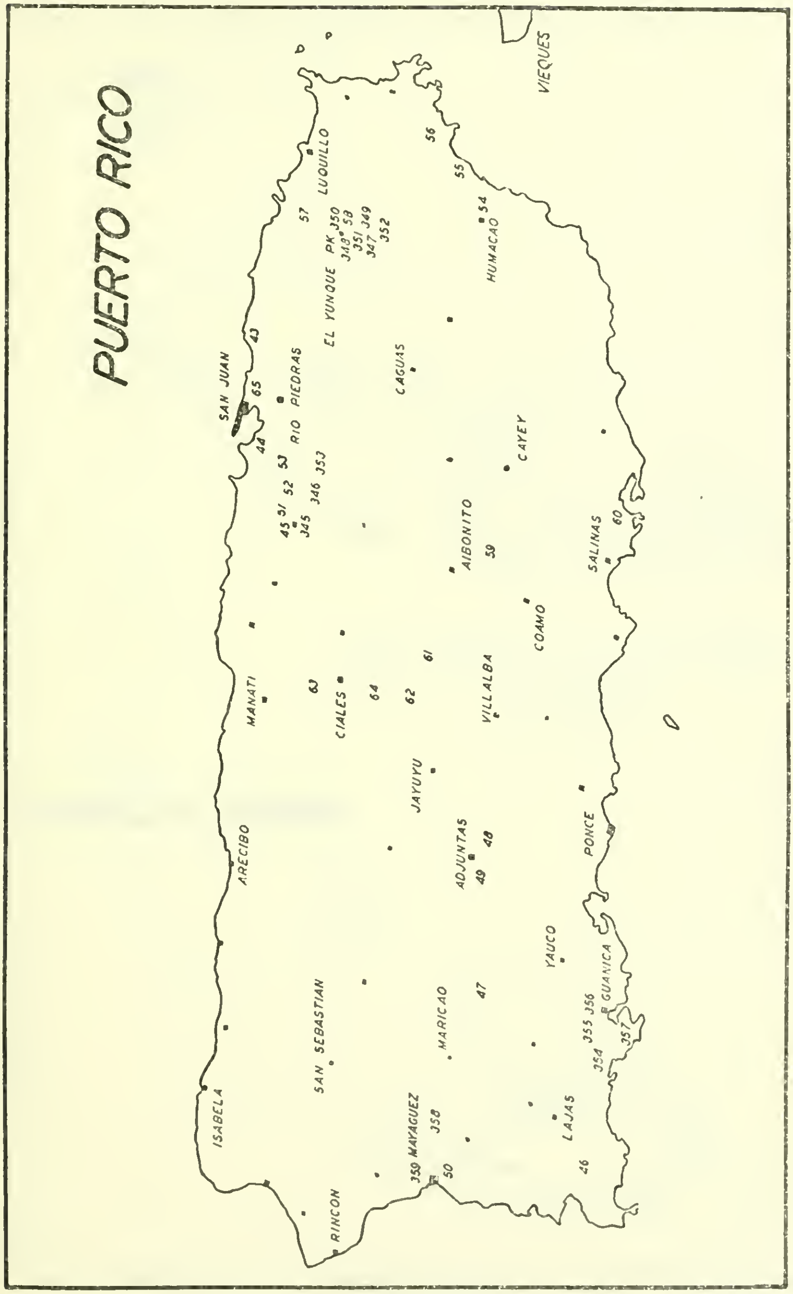
PORT-AU-PRINCE
21
22
23
JACMEL
24
28
27
LA GONAVE IS

Map No. 4.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VIEQUES
LUQUILLO
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HUMACAO
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EL YUNQUE PK.
350
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347
352
SAN JUAN
65
43
44
RIO PIEDRAS
CAGUAS
53
52
51
45
345
346
353
CAYEY
AIBONITO
59
SALINAS
60
COAMO
MANATI
63
CIALES
64
62
61
VILLALBA
JAYUYU
ARECIBO
ADJUNTAS
48
49
PONCE
YAUCO
GUANICA
355
356
357
354
SAN SEBASTIAN
MARICAO
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ISABELA
MAYAGUEZ
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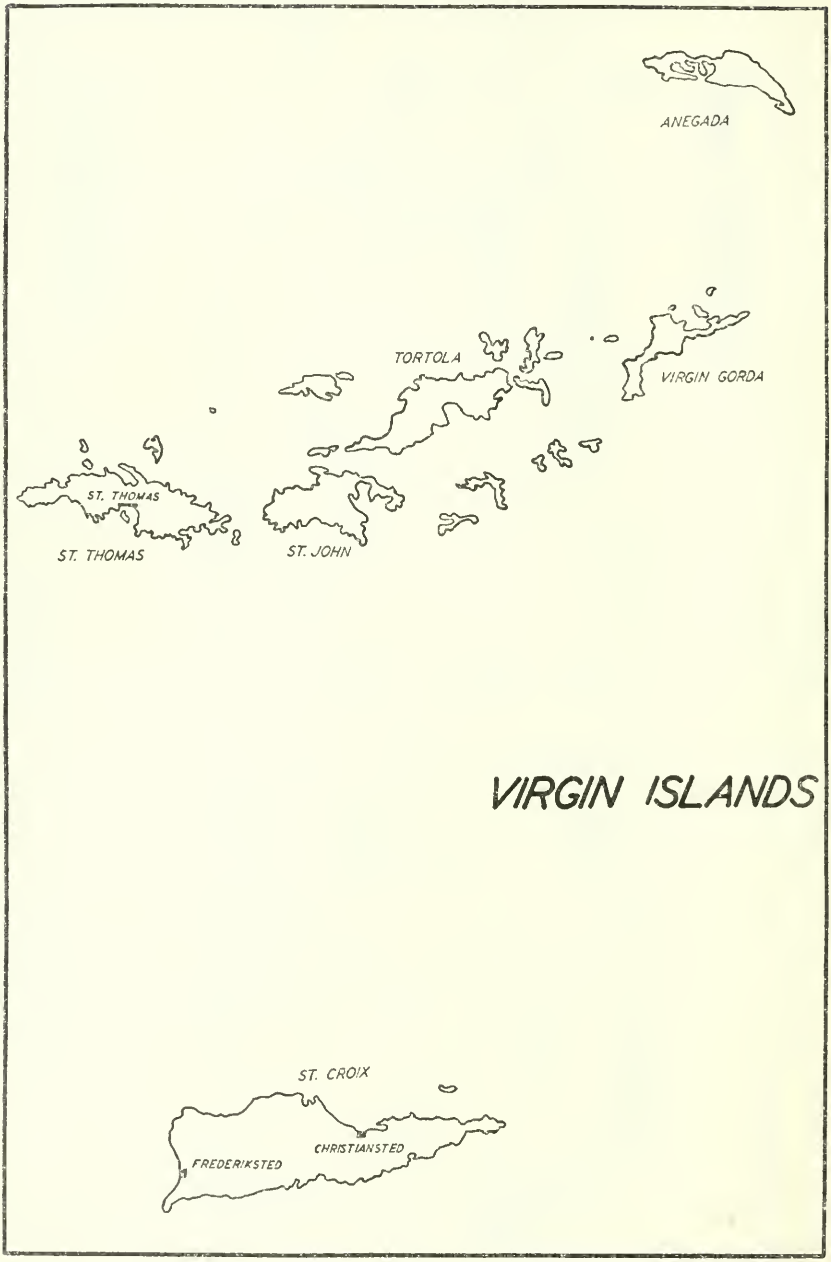
359
50
LAJAS
46
RINCON

Map No. 5.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VIRGIN GORDA
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ST. JOHN
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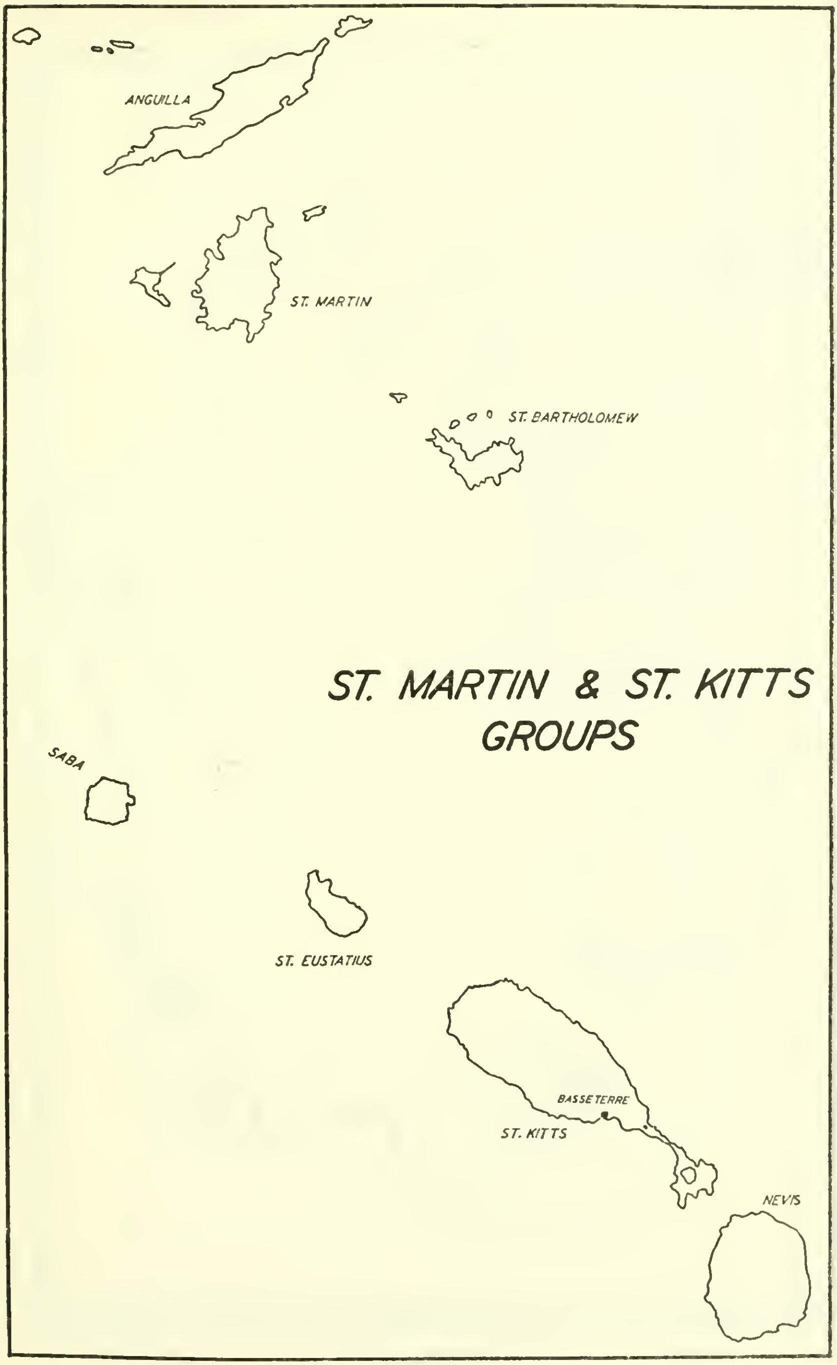
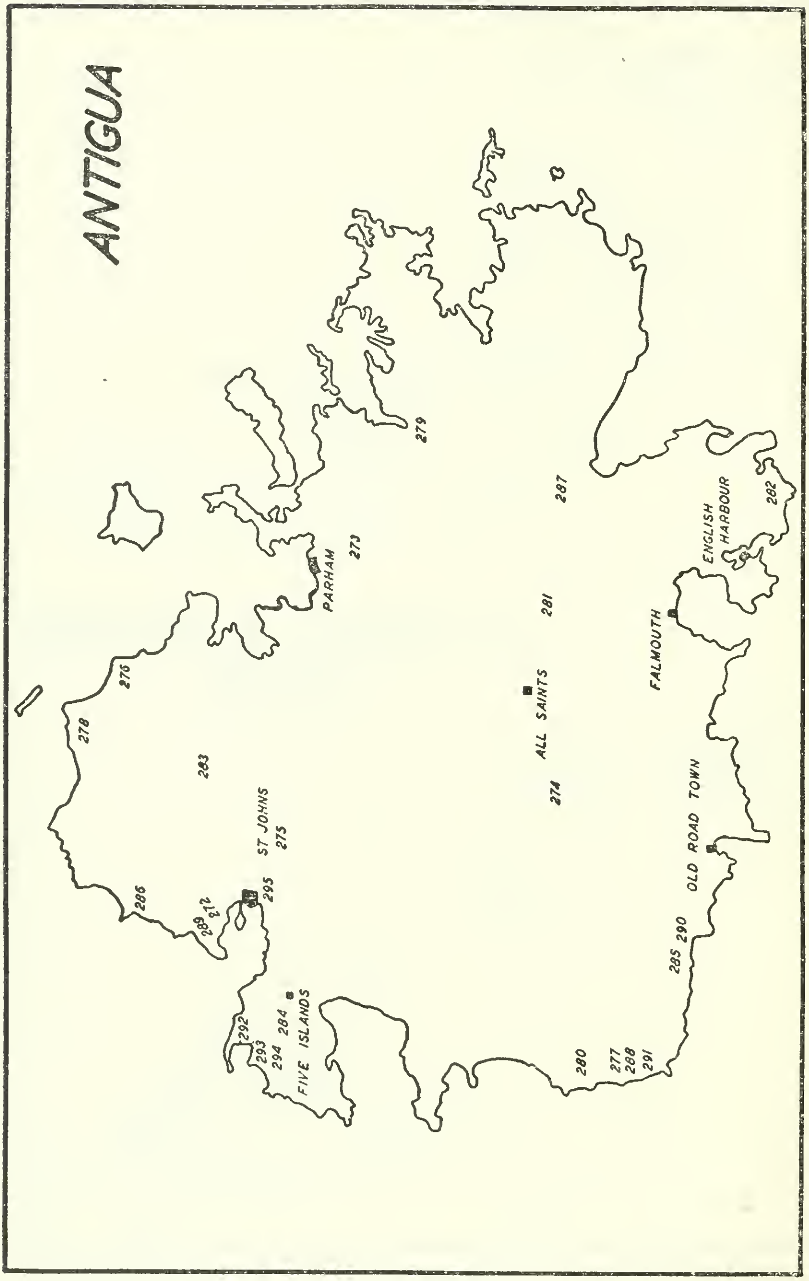
ST. CROIX
CHRISTIANSTED
FREDERIKSTED

Map No. 6.


ANGUILLA
ST. MARTIN
ST. BARTHOLOMEW
ST. MARTIN & ST. KITTS GROUPS
SABA
ST. EUSTATIUS
BASSETERRE
ST. KITTS
NEVIS

Map No. 7.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283
286
289
212
295
ST JOHNS
275
292
293
294
284
FIVE ISLANDS
PARHAM
273
279
287
281
ALL SAINTS
274
FALMOUTH
OLD ROAD TOWN
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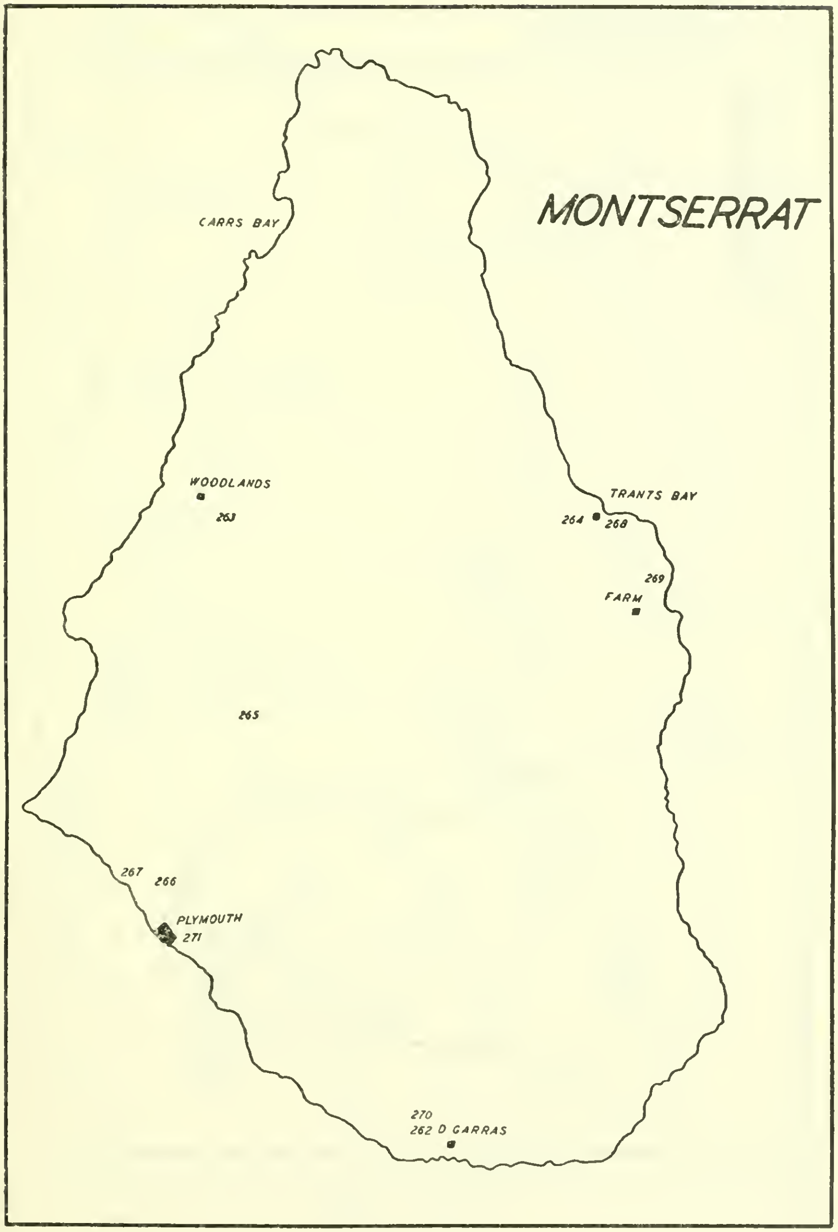
285
280
277
288
291
ENGLISH HARBOUR
282

Map No. 8.


MONTSERRAT
CARRS BAY
WOODLANDS
263
TRANTS BAY
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FARM
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267
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PLYMOUTH
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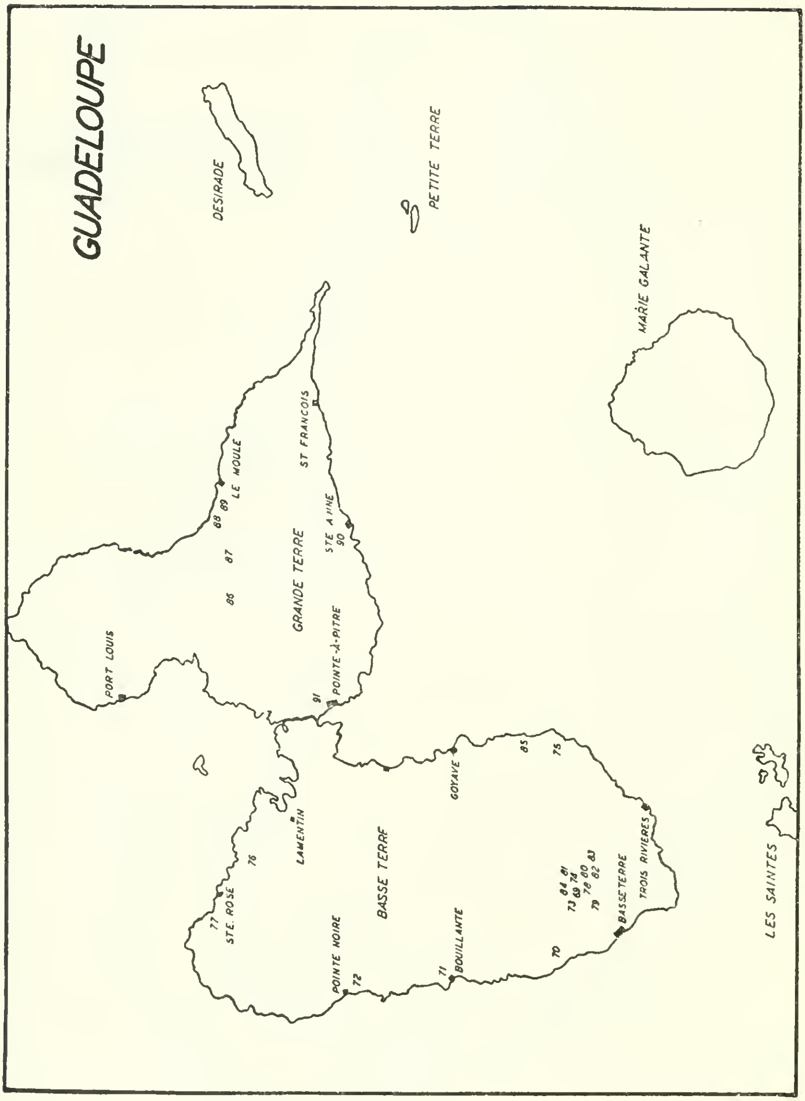
270
262
GARRAS

Map No. 9.


GUADELOUPE
DESIRADE
PETITE TERRE
MARIE GALANTE
PORT LOUIS
86
87
88
89
LE MOULE
ST FRANCOIS
GRANDE TERRE
STE ANNE
90
91
POINTE-À-PITRE
LAMENTIN
GOYAVE
85
75
76
77
STE. ROSE
BASSE TERRE
POINTE NOIRE
72
71
BOUILLANTE
70
84
81
73
69
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78
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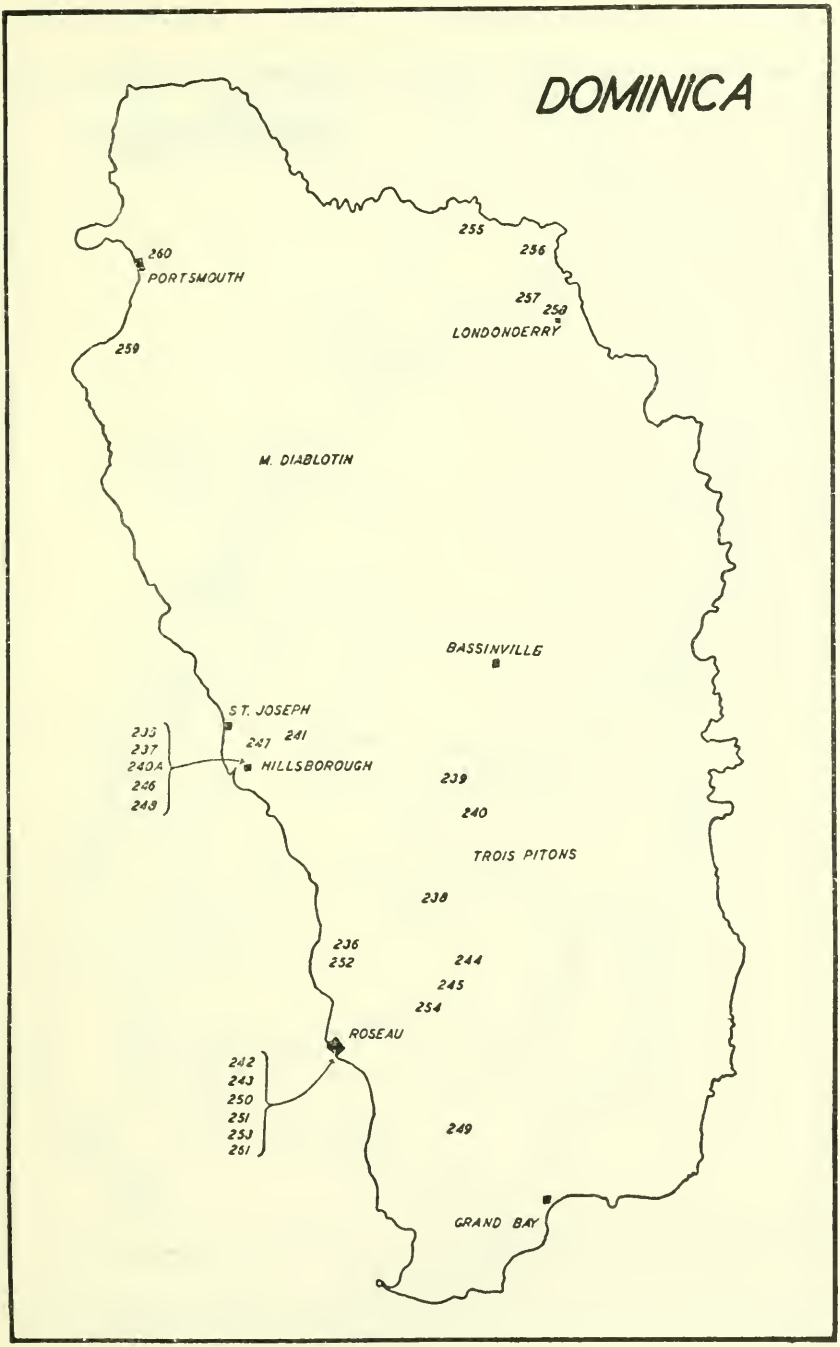
79
82
83
BASSETERRE
TROIS RIVIERES
LES SAINTES

Map No. 10.


DOMINICA
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PORTSMOUTH
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LONDONDERRY
259
M. DIABLOTIN
BASSINVILLE
ST. JOSEPH
235
237
240A
246
248
247
241
HILLSBOROUGH
239
240
TROIS PITONS
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ROSEAU
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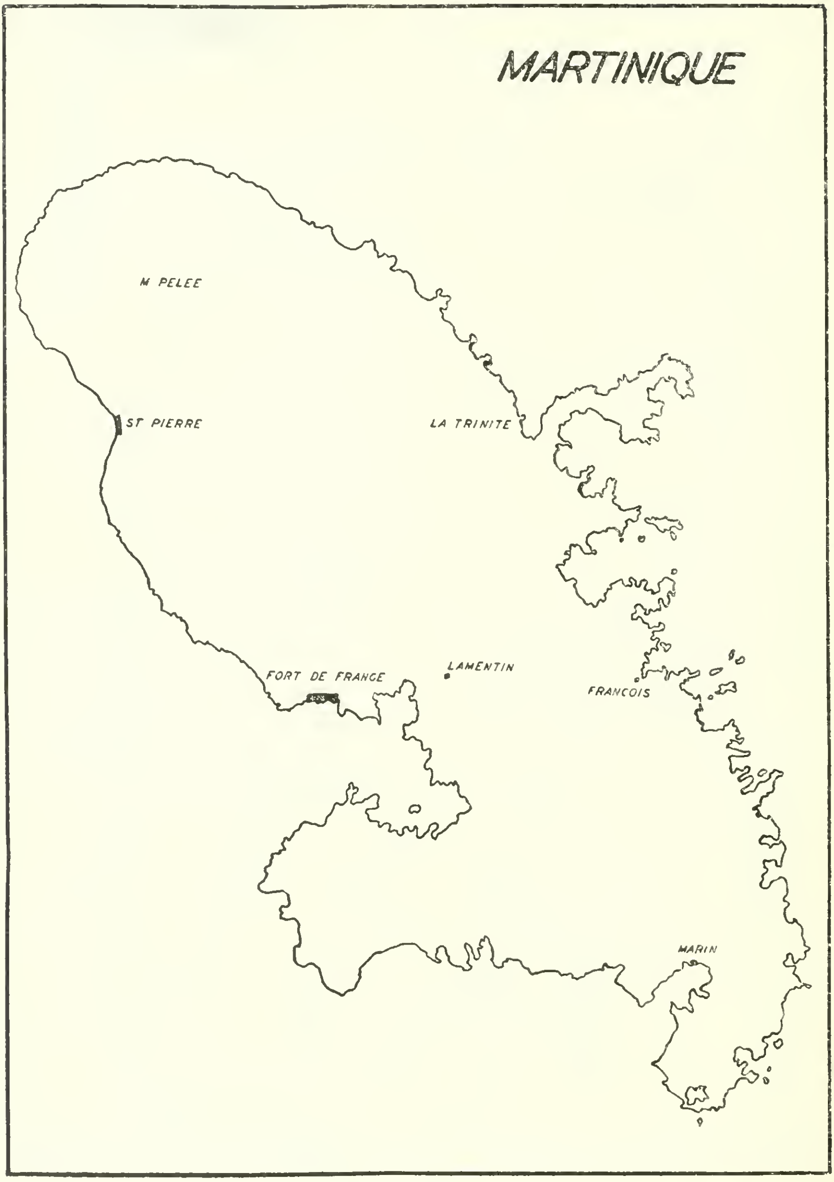
261
249
GRAND BAY

Map No. 11.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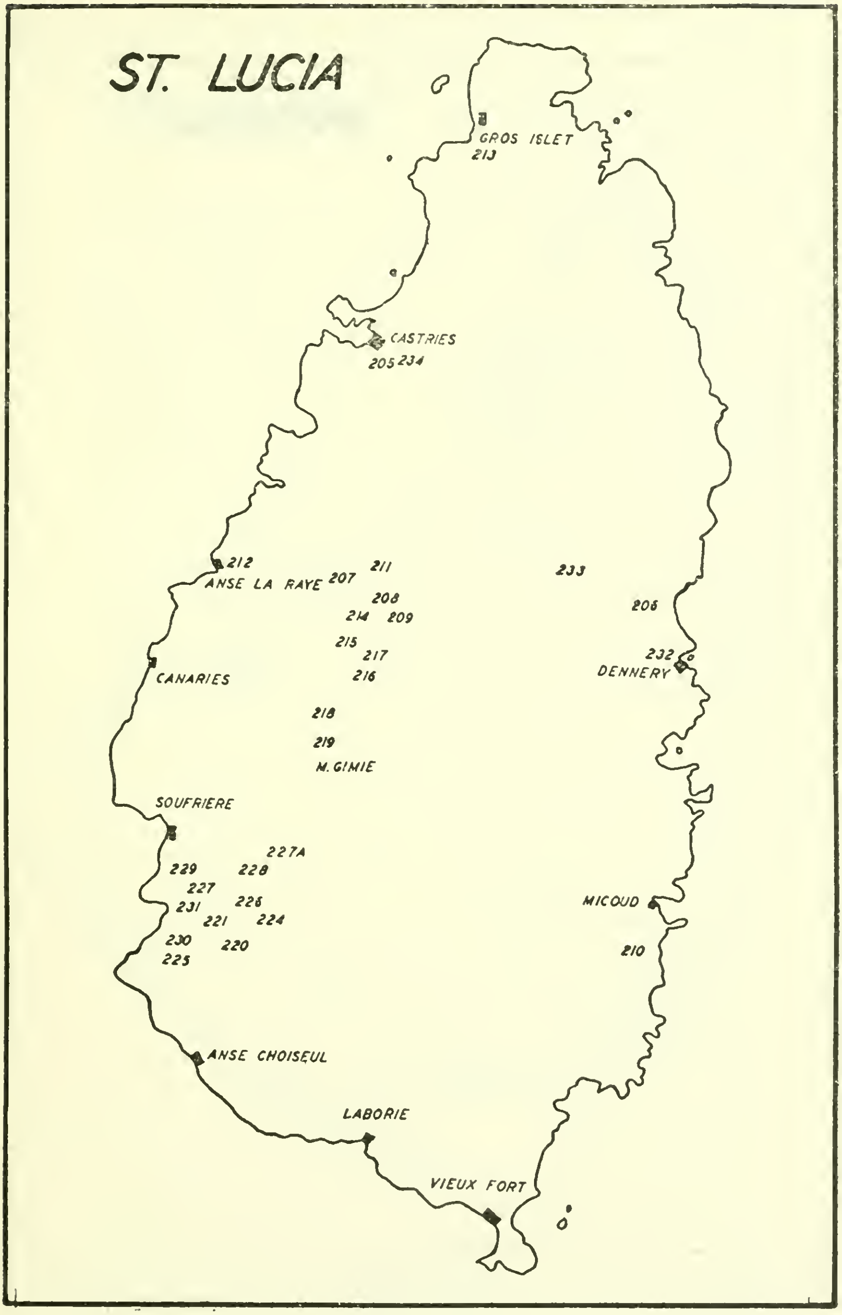
M PELEE
ST PIERRE
LA TRINITE
LAMENTIN
FORT DE FRANCE
FRANCOIS
MARIN

Map No. 12.


ST. LUCIA
GROS ISLET
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CASTRIES
205 234
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ANSE LA RAYE
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217
232
DENNERY
216
CANARIES
218
219
M. GIMIE
SOUFRIERE
227A
229
228
227
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MICOUD
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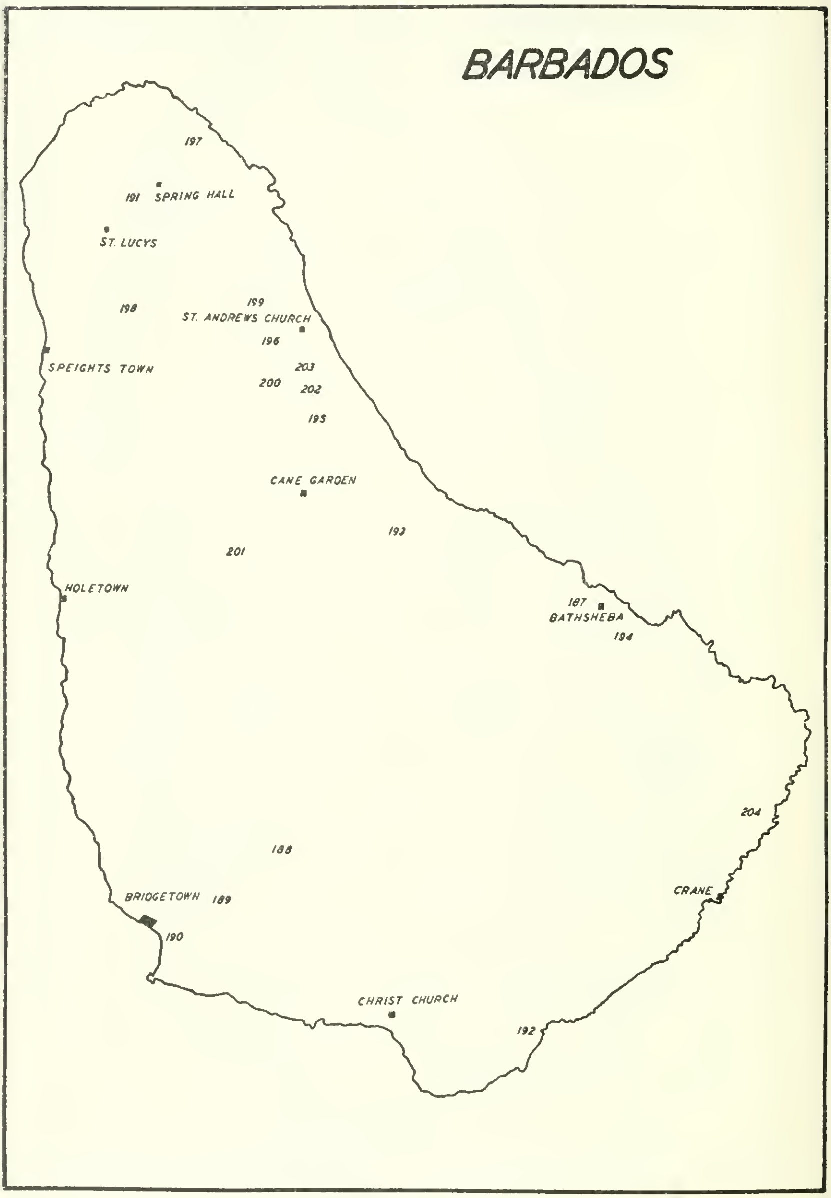
ANSE CHOISEUL
LABORIE
VIEUX FORT

Map No. 13.


BARBADOS
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191
SPRING HALL
ST. LUCYS
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199
ST. ANDREWS CHURCH
196
SPEIGHTS TOWN
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200
202
195
CANE GARDEN
193
201
HOLETOWN
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BATHSHEBA
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CRANE
BRIDGETOWN
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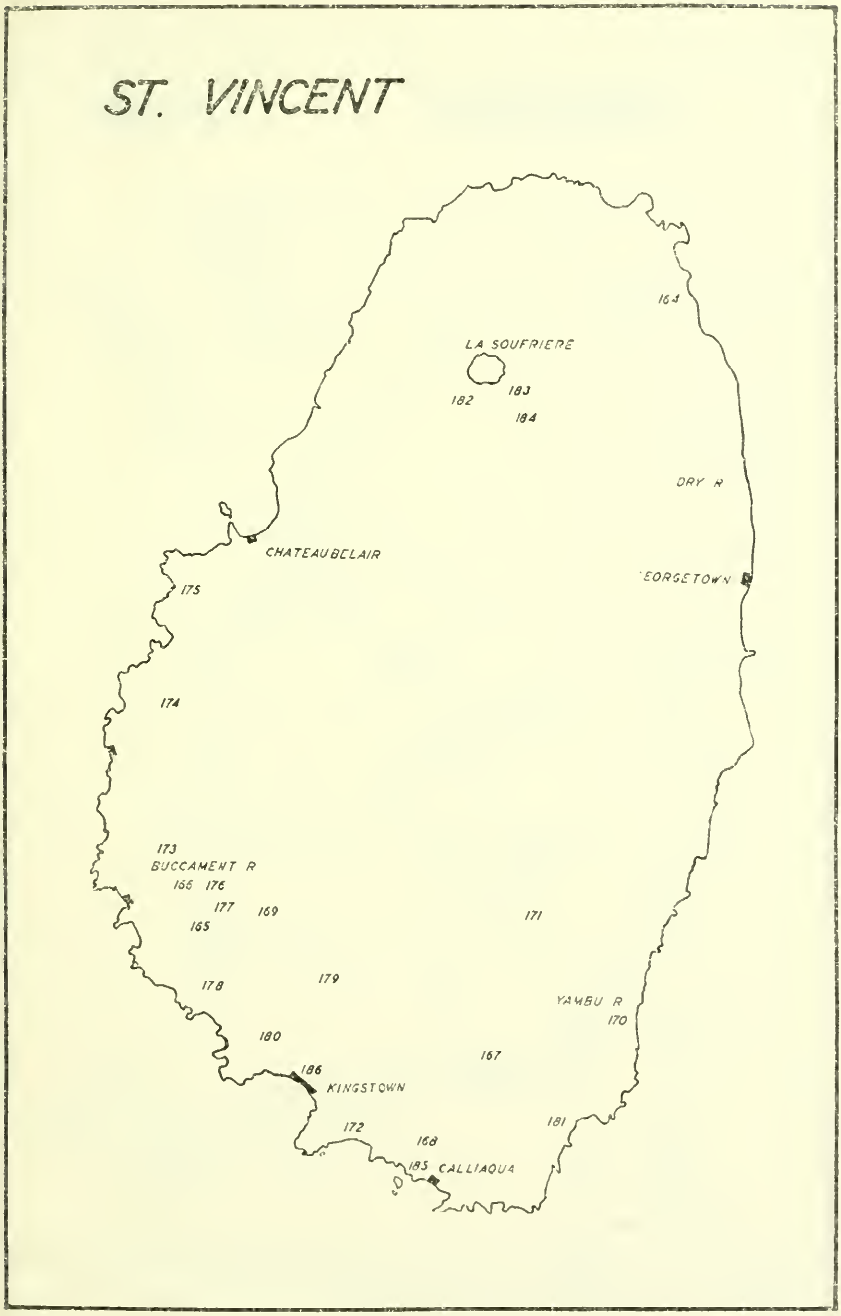
190
CHRIST CHURCH
192

Map No. 14.


ST. VINCENT
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LA SOUFRIERE
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DRY R
CHATEAUBELAIR
EORGETOWN
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BUCCAMENT R
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177
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YAMBU R
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167
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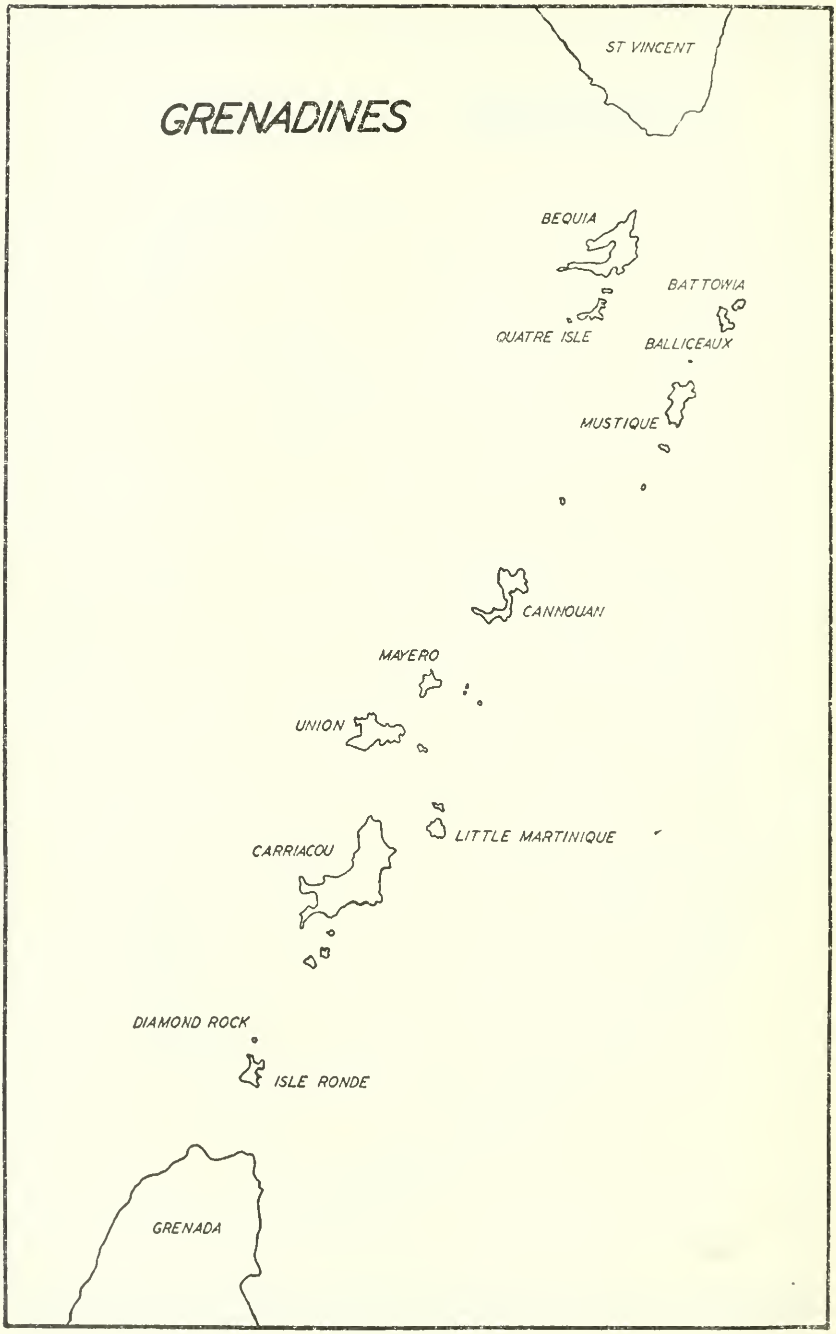
KINGSTOWN
181
172
168
185 CALLIAQUA

Map No. 15.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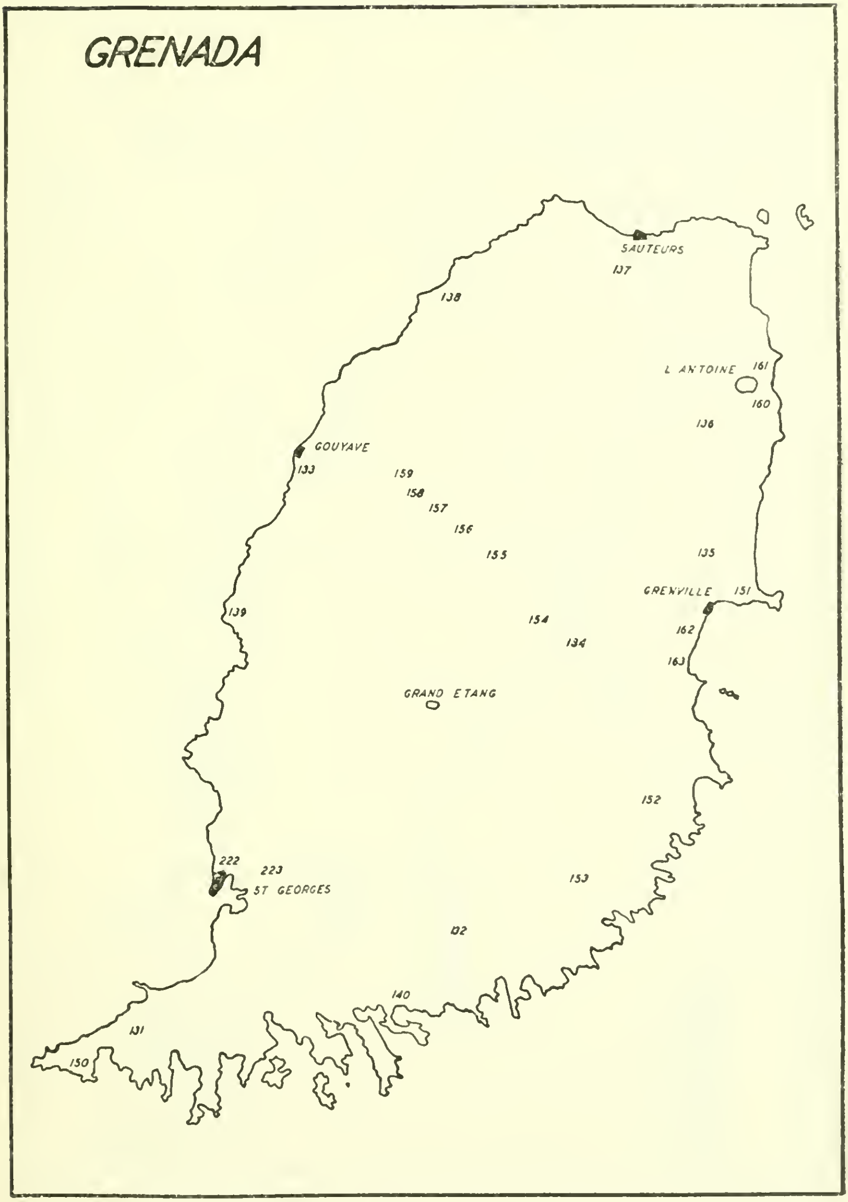
BATTOWIA
QUATRE ISLE
BALLICEAUX
MUSTIQUE
CANNOUAN
MAYERO
UNION
LITTLE MARTINIQUE
CARRIACOU
DIAMOND ROCK
ISLE RONDE
GRENADA

Map No. 16.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SAUTEURS
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L ANTOINE
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GOUYAVE
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GRENVILLE
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GRAND ETANG
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ST GEORGES
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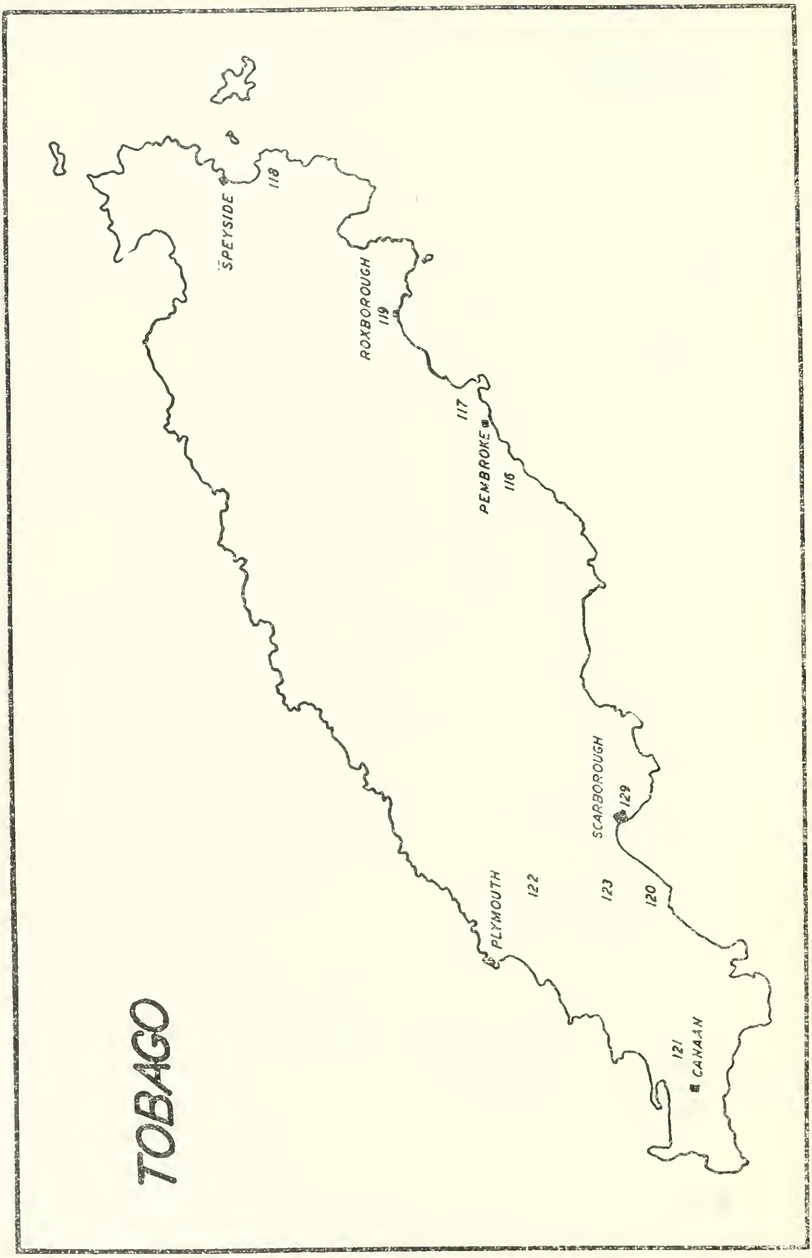
150

Map No. 17.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CANAAN
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ROXBOROUGH
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SPEYSIDE
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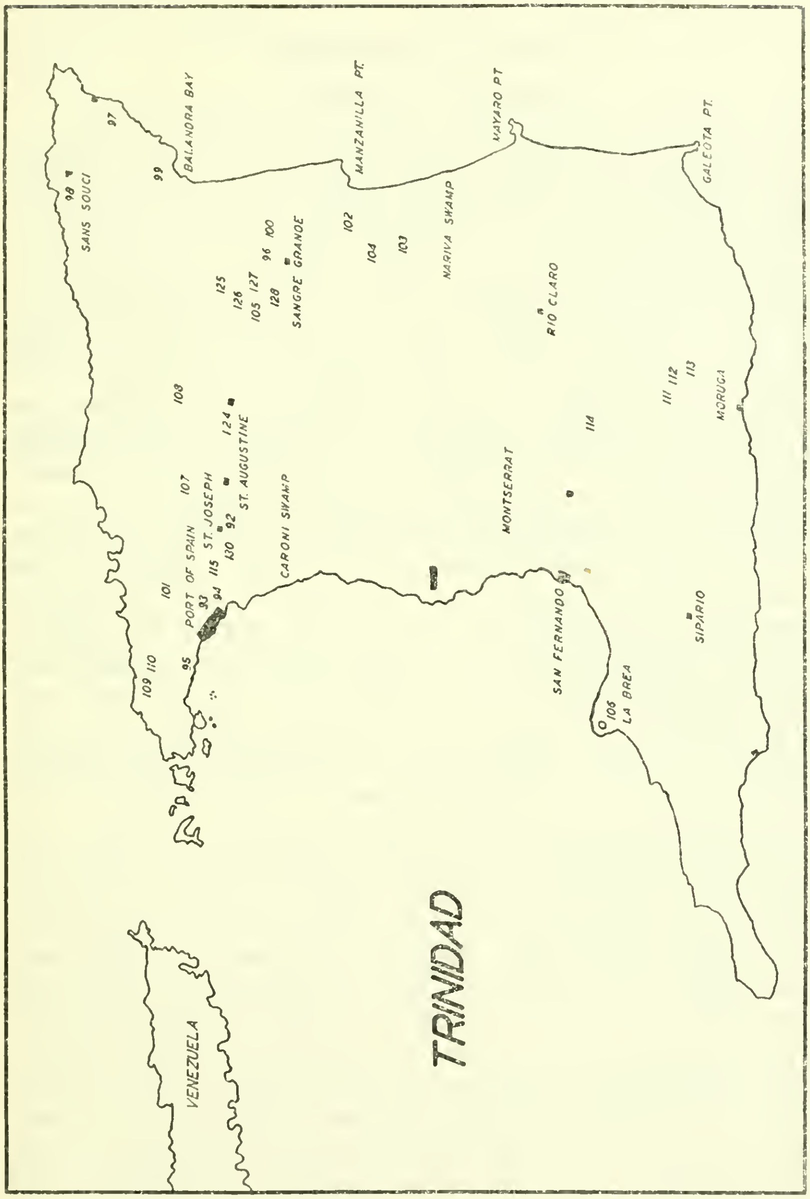
Map No. 18.


TRINIDAD
VENEZUELA
SANS SOUCI
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BALANDRA BAY
MANZANILLA PT.
MAYARO PT
GALEOTA PT.
NARIVA SWAMP
102
104
103
125
126
105
127
128
96
100
SANGRE GRANDE
RIO CLARO
108
124
ST. AUGUSTINE
107
ST. JOSEPH
92
130
115
94
93
PORT OF SPAIN
101
109
110
95
CARONI SWAMP
MONTSERRAT
114
111
112
113
MORUGA
SAN FERNANDO
SIPARIO
106
LA BREA

Map No. 19.

SYSTEMATIC TREATMENT

METHOD OF TREATMENT

It has been my endeavor throughout this monograph to present in uniform style all the information known for each species. Thus I have included keys to genera and species, complete synonymy, a standardized description, the exact type locality, the disposition of all types, all known records, the number and locations of all specimens I have examined, notes regarding the relationships and other items of interest, and what is known of the habits of the species. What my intention has been in each of these phases is indicated in the following paragraphs. In the case of genera it has not been possible to give as exhaustive a treatment. The synonymy with original citations, the genotypes of all names, a diagnosis of the important characters, and notes on relationships are given in each case.

All keys given are original and are frequently based on characters that have not been commonly recorded in the past. Many of these are structural characters described in a previous study of the morphology of the Staphylinidae (Blackwelder, 1936). No attempt whatsoever has been made to make the keys natural or to make them present a regular classification. They are considered to be purely artificial aids to the identification of the species, although in some cases the resulting arrangement may coincide with a natural grouping. For my conception of the arrangement of the groups one should consult the Systematic Catalog (p. 562).

In the generic synonymy all names are listed that have been used as genera or subgenera and are now considered synonyms or subgenera. The latter are treated as synonyms except for the indication of their usual status. Wherever possible, misspellings and nomina nuda are included since there is always some chance that further information will change their status. The generic synonymy is based principally on two sources: The Junk Coleopterorum Catalogus (Bernhauer, Schubert, and Scheerpeltz, 1910 to 1934) and new synonyms discovered during the present study. The new synonymy is not indicated as such in the list but is usually discussed in the "Remarks" at the end of the diagnosis. Exceptions to the above are the subfamily Paederinae and the tribe Lispinini. In these all the synonymy is based on new studies of the genotypes, undertaken as necessary sidelines of the present study and recently published as generic revisions of the groups (Blackwelder, 1939a and 1942).

It is obviously impossible to make identifications of species unless the genus is definitely known. The genus depends largely upon its genotype for its definitive characters, and it is therefore very important to have designated genotypes for all the generic names. Very few designations have been made in this family, even by students who have made careful studies of genera and subgenera. Such studies may lose much of their value if their writers' conception of the genus differed from the conception of the original describer of the genus. Our rules of procedure compel us to go back to the original conception, and this should be established as the cornerstone of the foundation of each generic revision. I have, therefore, listed genotypes for all names, although this has involved the designation of a great many. The International Rules of Zoological Nomenclature have been scrupulously adhered to, and all doubtful cases are discussed in footnotes. It is possible that previous designations have been overlooked in some cases, but careful search has been made and every original description examined. An indication is always given as to the source of the designation, whether it is a monobasic genus or designation was made originally, subsequently, or in the present work.

The generic diagnoses form, in my estimation, one of the important contributions of this study. It is very surprising to find that few of our several thousand named genera of Staphylinidae have ever been carefully described. Original publications far too often base a genus simply upon a certain species, or upon a single difference between it and a related genus. In trying to remedy this I have assembled a diagnosis containing the characters that appear to be of generic value in that subfamily, giving them in a uniform manner for comparison. These were almost always drawn from actual specimens, wherever possible from the genotype. Some characters used in these descriptions have not been commonly used in the past. Explanations of them will be found under "Terminology" or in my study of the morphology (Blackwelder, 1936). It is believed that these characters will be found to hold for most of the species of the genus in any part of the world. Frequently several species have been examined, but it is, of course, impossible to be certain without examining all the species of each genus. They will hold, I believe, for all the American species.

The keys to species are often based in part upon species known to me only by descriptions. Although this has forced me to rely in part on the characters (frequently superficial) that are to be found in the descriptions, it seems worth while in enabling one to have a complete picture of the genus without having to consider a series of "species inquirendae." If these keys be found to be faulty, it will seldom affect the species I had before me but only the doubtful ones. Before each specific name in the key is a number indicating the position of that species in the sequence of the text.

Very careful attention has been given to the specific synonymies. Although the Junk catalog has again been used as a starting point, a large amount of synonymy has been found that is not recorded in that already voluminous work. In addition, each species is recorded under each generic name with which it has ever been coupled. In general, I have tried to cite all references to each species, but in the case of cosmopolitan species this is obviously impracticable. In such cases, only the original reference is given. The date and page refer to the detailed citations in the bibliography.

Throughout the work the descriptions have been arranged on a uniform pattern. The color and markings are given first; then the details of the head, pronotum, elytra, and abdomen, with their appendages, in that order; the special characters of the male and the female; the special characters of the legs; and finally the length. Throughout each genus I have tried to mention the same characters in the same order and manner to facilitate comparisons. Certain terms and usages are explained in a later paragraph.

There is a strong and highly commendable tendency among modern entomologists to give exact dimensions in the descriptions of insects. Doubtless these are of great value in many groups. However, in the Staphylinidae there is almost always a considerable range of size due to at least two factors: (1) The actual difference in size of individuals; and (2) the apparent difference caused by greater or less retraction of the flexible abdomen. A very exact measurement of total length is of little use if the specific range is great. Since in the present work direct measurements have not been found to be of great value, the length is given in millimeters and major fractions thereof, and all minor measurements are given as proportions of one part to another. These are expressed as fractions rather than as ratios because they have thus been found to be more readily understandable and comparable.

Several factors have prevented the use of primary genitalic characters in the descriptions. The first of these was the lack of time to develop techniques and make the numerous dissections and preparations. Another was the fact recently demonstrated in other studies that some genera do not present usable specific characters on the genitalia. And so little has been done on this phase of the study of the Staphylinidae that there is not a proper foundation on which to start such a study. This is not to be construed as a declaration that these structures may not in many cases prove to be of great value in classification. The sexual characters of the seventh, eighth, and ninth segments have been recorded wherever possible. They are frequently of high value in specific distinctions, and they generally enable one to distinguish the sexes.

The type or original locality of a species is frequently of interest in cases in which two closely related species are confused and in other situations. It has been found, however, that there are several conceptions of the meaning of the term "type locality." As used herein the type locality is the actual place at which the holotype was taken, whether this exact spot is now known or not. However, specific type localities have seldom been given for West Indian species, and it has been necessary to content oneself in many cases with merely the name of the island. In every case, however, the locality is given with as much exactness as possible. In certain species it has been found that the published locality does not agree with that on the type specimen. These cases are individually discussed in the text.

The present location of type specimens and material from the type series is of considerable interest to persons desiring to make an intensive study of a species or genus. Our accepted procedure nowadays demands the recording of the type depository, but in the past such record was more often omitted than not. It has therefore been thought advisable to record the disposition of types wherever possible. In the case of all new species the types have been carefully designated and labeled, and catalog numbers have been assigned to those in the United States National Museum. The types in the British Museum (principally of Sharp's and Cameron's species) are in part holotypes and in part undesignated lectotypes (syntypes), but they have all been treated uniformly as holotypes. The same is true of the types in Dr. Cameron's collection. Many of the species, however, were described long ago by Erichson, Fauvel, or others without designation of or record of disposition of types. In these cases I have indicated the probable location of the type, based on the location of the collection as recorded by W. Horn in his work "Über entomologische Sammlungen" (Berlin-Dahlem, 1935–37).

In order to give a complete outline of the distribution of each species, I have listed all the records I have been able to find, whether previously published or represented by specimens in collections or new ones from my own collecting. These are arranged geographically in the following order: (1) The West Indies from the Bahamas Islands through the Greater Antilles and the Lesser Antilles to Trinidad (and Curaçao); (2) South, Central, and North America; (3) Europe, Africa, and the Orient. In the case of large islands, such as Cuba, Jamaica, Hispaniola, Puerto Rico, and Trinidad, specific localities are listed when known; but with the smaller islands this has seemed unnecessary. In all cases of my own records, however, reference is given to the collecting stations listed hereinafter (p. 584), where detailed localities can be obtained. For continental American and for Old World records only the country (or State in the United States) is given, with the source of the record. The records for Guadeloupe have generally been divided between Basse Terre and Grande Terre. (See map No. 10). These are virtually separate islands and are very different in topography and vegetation. Records from Hispaniola have been separated as from Haiti and the Dominican Republic. This is simply a matter of convenience.

There frequently arise situations when another student is attempting to use a work of this sort, in which he needs to know what specimens and how many were before the describer or reviser. He will also want to know if the types have been examined. I have therefore given for each species the number and location of the specimens that I have examined, with specific mention of the types if they were studied.

Other data of interest not included in the previous sections are mentioned under "Remarks." Comparisons with similar species are often given, and mention of the subgenus is made if it has been determined. And what is known of the habits or occurrence of the species is given in a separate paragraph.

Certain exceptions to this general plan should be noted. The subfamilies Euaesthetinae and Aleocharinae and the genera *Palaminus* and *Stenolinus* are not treated in the monographic manner that was used for the others. The reasons for these omissions vary as outlined below.

The subfamily Aleocharinae contains a large and varied assortment of insects but is rather homogeneous in structure. Since the time of Erichson its subdivisions have been based in the primary divisions upon the number of the tarsal and palpal segments. The usual minute size of these species, and the occasionally great specialization, make it very difficult to count these segments under ordinary conditions of examination. Indeed, it is absolutely necessary to know the amount of magnification used by the previous workers in order that one should not see more than they were able to see and therefore get a different result. One recent worker has gone so far as to suggest that possibly all Aleocharinae have the tarsi 5-segmented in reality, although they have been described as having them 5–5–5, 5–5–4, 5–4–4, 4–4–4, 3–3–3, and even more reduced. This is certainly not the case, but examples are numerous to show that this group is a plastic or changing one in regard to these matters of segmentation (and perhaps other characters). It should be obvious, therefore, that a reliable classification cannot be built primarily upon the tarsal and palpal segmentation, and inasmuch as our only classifications now do depend on those characters there is a high degree of probability that there are duplications and involved synonymies to be discovered. In such a situation it is very hard to see what is gained by describing new species or by attempting to make identifications. If one may judge from the flood of new species of Aleocharinae that have been described in recent years, there are students of this family who will not agree with this point of view. Nevertheless, until some sort of practicable order be brought into what appears now to be a hopeless chaos (from the point of view of all save a few specialists), I believe it far better not to add to the confusion by publishing new species or even new records, except in a few cases where the species are readily recognizable in spite of the generic confusion. For this subfamily, therefore, I have not attempted to prepare diagnoses, keys, or descriptions, although many of the West Indian species are probably recognizable when isolated from all foreign species. It has been thought worth while to list the species that have been described and give the West Indian records. It appears that this is all that can be done at the present time without adding to the confusion that already exists.

The subfamily Euaesthetinae is a small and relatively unstudied one. Virtually none of the genera have been described at all, and generic assignments can be made only with the greatest difficulty. The time was not available to make a generic revision of the group, so I have merely listed the described species and the known records.

The genus *Palaminus* contains several species described from the West Indies. The other American species are very imperfectly known and the limits of specific variation have not been ascertained. Some material in this genus was available to me, but it seemed insufficient to permit decisions as to specific limits. I have, therefore, listed the species without keys, given the known records, and left the remaining specimens to be studied at some later time.

Certain other genera have not been available to me except from the original descriptions. These include chiefly genera recently described by Bierig. Without in any way intending to question the validity of these genera, I have been unable to include them in proper form for lack of specimens to examine. In some cases translations of the original descriptions are given, and in some only a brief summary is included. These genera will have to be restudied before they can be fitted into the classification presented here.

The genus *Cephaloplectus* has been found in Trinidad (species *godmani*) and would normally have been included in this study as the subfamily Cephaloplectinae. However, Dr. C. H. Seevers, of Chicago, has recently studied this group and believes that it definitely does not belong in the Staphylinidae. His results will be published soon, but the genus is omitted from this paper on the basis of his opinion.

FAUNAL RELATIONSHIPS

Although our records are not complete enough to enable us to draw final conclusions as to the distribution (either present or historical) of the family Staphylinidae in the West Indies and surrounding regions, it is possible to get some indications of the general situation. The facts of distribution so far as known are presented in the following tabulation, in which the second group indicates the number that do not show any interisland distribution, and the succeeding groups deal with those that do yield evidence on this subject.

Total number of species—

Recorded from West Indies	468
Represented by type material	117 (plus 212 new) = 329
Described as new	212
Not herein recognized	34
From only 1 island	270
From Greater Antilles only	182
From Lesser Antilles only	34
From Trinidad only	54
Showing distribution in West Indies	198
From most of islands	49
From Greater Antilles only	48
From Lesser Antilles only	22
From 1 or more in each group	38
Showing distribution outside West Indies	97
From West Indies and America only	79
From West Indies and eastern hemisphere only	2

From West Indies and North America only	27
From Greater Antilles only and North America only	2
From Greater Antilles only and Trinidad and North America only	1
From Lesser Antilles only and North America only	0
From both groups and North America only	5
From Trinidad and North America only	0
From West Indies and Central America only	46
From Greater Antilles only and Central America only	4
From Lesser Antilles only and Central America only	1
From both groups and Central America only	3
From Trinidad only and Central America only	1
From West Indies and South America only	56
From Greater Antilles only and South America only	0
From Lesser Antilles only and South America only	7
From both groups and South America only	8
From Trinidad only and South America only	6
From West Indies and North America and Central America	2
From West Indies and North America and South America	3
From West Indies and Central America and South America	13
From Trinidad and Central America and South America	6
From West Indies and North America and Central America and South America	15
From Trinidad and North America and Central America and South America	1

From these tabulations it appears that 8 percent of the species not restricted to the islands occur also in North America only, 9 percent in Central America only, 21 percent in South America only; 2 percent in both North and Central America, 3 percent in both North and South America, 13 percent in both Central and South America, and 15 percent in all three parts of the mainland. Furthermore, combining the above, 27 percent occur in the islands and in North America (at least), 46 percent in the islands and in Central America (at least), and 56 percent in the islands and in South America (at least). Of these same 97 species that occur in the islands and on the mainland, 16 percent occur also in the Eastern Hemisphere. And 2 species in the West Indies occur also in the Eastern Hemisphere but not on the American mainland at all.

Some entomologists have considered Trinidad (and Tobago) to be South American and not related to the West Indies faunally. In support of this the present study includes 54 species that occur in Trinidad alone and 13 species that occur in Trinidad and South America but not in the true West Indies. It should be noted that the staphylinid fauna of Venezuela is only slightly known, and it is likely that many more of the Trinidad species will be found also on the mainland. The evidence that has led me to include Trinidad in this study of the West Indies is principally the number of species occurring in the islands and also in Trinidad. This number is 50, and only half of these are yet known from South America.

Six genera occur in Trinidad and South America but not in the true West Indies. These are *Leptochirus*, *Ophites*, *Suniocharis*, *Ronetus*, *Philothalpus*, and *Plochionocerus*. They support the contention that Trinidad is faunally South American.

These statements are all based on the data now available and will undoubtedly be revised as our knowledge of the West Indian Staphylinidae increases. The conclusions are in general accord with those derived from studies of other groups of animals and of plants, except as to the inclusions of Trinidad and Tobago in the West Indies.

Although it is not practicable to include here lists of the species recorded from each island, it is of interest to note the total number of species that have been taken on each one. The totals include the species collected by me, those unpublished records I have found in various collections, and all the previously published records: Bermuda, 2; Bahamas Islands, 1; Cuba, 172; Isle of Pines, 4; Cayman Islands, 3; Jamaica, 128; Hispaniola, 119; Mona, 1; Puerto Rico, 103; Vieques, 3; Culebra, 1; St. Thomas, 19; St. John, 11; Tortola, 1; St. Croix, 37; St. Bartholomew, 1; St. Kitts, 11; Antigua, 32; Montserrat, 32; Guadeloupe, 64; Les Saintes, 1; Dominica, 32; Martinique, 5; St. Lucia, 50; Barbados, 17; St. Vincent, 76; Mustique, 9; Carriacou, 7; Grenada, 84; Tobago, 11; Trinidad, 122; and Curaçao, 1. Together these records include 468 species. Of these 59 are known to occur also in South America, 51 in Central America, and 28 in North America.

SOURCES OF RECORDS

Several sources of records have been mentioned in previous paragraphs. The largest one, of course, has been the identifications made by me of the specimens available in several collections. Many of these identifications amount to rediscovery of species unreported since their original proposal 50 to 100 years ago.

A considerable number of species have been found already identified in the collections of the United States National Museum, the British Museum, Dr. M. Cameron, and myself. These determinations have been checked in all cases and, if verified, have been included. A number of these records are believed to be errors in identification or to represent synonyms. These appear in the synonymy or are discussed in the sections headed "Remarks."

The entire literature on the Staphylinidae, so far as time and facilities would permit, has been searched for references to the West Indies. Records that appear to be based on correct identifications and locality records have been included; others are discussed in the

"Remarks" or included in brackets as doubtful records. One source of these records has been found somewhat unreliable. Many records of "Südamerika" in the Junk Catalog should be changed to St. Thomas, St. John, or Puerto Rico. These are principally Erichson's species, and the error was in the translating of his localities.

The principal sources of West Indian records in the literature (besides the Junk Catalogs) are the works of Erichson, DuVal, Fauvel, Leng and Mutchler, Cameron, Wolcott, and Bierig. Dr. Cameron and Sr. Bierig have contributed the largest number of new species all within the past 30 years.

TERMINOLOGY

Some terms have been employed in this paper that have not commonly been used before in the Staphylinidae. A number of these are used and defined in a previous paper on the morphology of the Staphylinidae (Blackwelder, 1936). Others, which may not be entirely self-explanatory, include the following: The segments of the antennae have usually been referred to in the literature as "joints"; this is herein used only for the articulation between the segments, as "the outer segments are pubescent beyond the third joint," that is, the fourth to eleventh segments. The base and basal angles of the head are described in relation to a line tangent to the middle of the base; if the base touches this line at two points, it is said to be emarginate; the distance of the eyes from the base is measured to this line. Margining of the abdomen implies the presence of paratergites, either singly or in pairs, but these may be present in unmargined species as well.

The words punctation, tuberculation, and sculpture are used as entirely separate and distinct. Sculpture is restricted to the minute reticulations, striations, aciculations, and unevennesses of the surface seldom visible at all with magnifications less than ×30 (on specimens of 5 mm. length or less). Tuberculi may be structurally related to punctures (or may bear punctures) but are always elevated above the surface. Umbilicate punctures have an obvious flat bottom to the depression with a smaller punctule at the middle (often setiferous).

The terms spine, horn, and tooth are applied only to immovable processes of the bodywall, whereas seta, hair, setula, fimbria, calcar, and spur are used for movable processes—all morphologically setae. The word spinule as used in *Osorius* refers to processes that grade from large setae into tubercles bearing setae and into ordinary spines.

As used in this bulletin, the words dung, manure, and excrement refer to cow dung, horse manure, and human excrement, respectively.

ARRANGEMENT OF SUBFAMILIES AND GENERA

The arrangement of subfamilies used here is partly the result of studies carried out on the genera included herein and differs from that used in the Junk Catalog and other recent works in the following points: (1) The subfamily Oxytelinae is restricted to what is called the tribe Oxytelini in the Junk Catalog, and the Piestini, Omaliini, and Osoriini are elevated to the rank of subfamilies; (2) the Staphylininae and Xantholininae are retained as tribes, but the Xanthopygini and Quediini are considered to be subordinate to the former; (3) the Cephaloplectinae are omitted as not belonging to the Staphylinidae; and (4) the Hypocyphtini are elevated to the rank of subfamily.

In certain groups the arrangement of genera is based upon studies of the genotypes and represents new conclusions as to the relationships. For example, the subfamily Piestinae is restricted to the subtribes Piesti and Trigonuri through the removal of all the other subtribes to the new subfamily Osoriinae. The latter is rearranged into three tribes and seven subtribes, all of which occur in the West Indies. The subfamily Paederinae has been completely rearranged into a system based on the relative specialization of its members, but no attempt has been made to arrange categories between the subfamily and the genus, although such groups do certainly exist. The position of the tribes Xantholinini and Staphylinini have been reversed because of the obviously greater specialization of the former, but no comprehensive study of the groups has yet been made. Some rearrangement of genera in the subfamily is proposed.

KEY TO SUBFAMILIES OF WEST INDIAN STAPHYLINIDAE

1.	Antennae inserted into vertex between eyes	2
	Antenna inserted at front or side margin of head	3
2.	Posterior coxae conical, not expanded	Steninae
	Posterior coxae expanded laterally under the femora	Aleocharinae
3.	Abdomen not margined above at sides, *and* fourth segment of maxillary palpus not enlarged or securiform	Osoriinae
	Abdomen margined at sides above, *or* fourth segment of maxillary palpus enlarged and more or less securiform	4
4.	With two ocelli	Omaliinae
	Without paired ocelli	5
5.	Antennae 10-segmented	Hypocyphtinae
	Antenna 11-segmented	6
6.	Anterior coxae small, globose	Piestinae
	Anterior coxae conical, exserted	7
7.	With elongate labral processes	Stylopodinae
	Without elongate labral processes	8
8.	Antennae distinctly clubbed	Euaesthetinae
	Antennae not distinctly clubbed	9

9. Second abdominal sternite present---------------------------- Oxytelinae
Second abdominal sternite absent------------------------------------- 10
10. Antennae inserted along anterior margin of head---------------------- 11
Antenna inserted at sides of head near eyes----------------- Tachyporinae
11. Intersegmented membranes with pattern of rectangular areas- Paederinae
Intersegmental membranes with pattern of longitudinal rows of variously shaped areas-- Staphylininae

Subfamily PIESTINAE

As previously constituted this was a moderate-sized subfamily of varied structure and appearance, which has been found to be difficult to define. Difficulties encountered during the study of the West Indian species led to a paper recently published[1] in which several of the subtribes of the Piestinae (Piestini of Bernhauer and Schubert[2]) were transferred to the new subfamily Osoriinae. The genus *Cephaloxynum* is here transferred to the subfamily Staphylininae. These changes leave the Piestinae with only two West Indian genera, *Piestus* and *Hypotelus*, although other genera not found there will probably also remain in the subfamily. These latter include *Trigonurus*, *Siagonium*, *Trigites* (*Pseudeleusis*, *Triga*), and perhaps others. This subfamily is thus greatly reduced in size, while being made much more homogeneous through the removal of extraneous elements.

KEY TO WEST INDIAN GENERA OF PIESTINAE

1. Head with regular impressed line between antennae; elytra striate--- II. **Piestus**
Head without impressed lines; elytra not striate------------- I. **Hypotelus**

I. Genus HYPOTELUS Erichson

Hypotelus Erichson, 1840, p. 840.

Genotype.—*H. pusillus* Erichson (designated by Duponchel, 1841).

Diagnosis.—Body slender, subdepressed, glabrous; head rounded in front, not narrowed posteriorly; eyes small but prominent; antennae longer than head and pronotum, basal segment (of male) with a prominent tooth; mandibles small, unarmed; fourth segment of the maxillary palpus at least twice as long as third; labium subsemicircular; labial palpi short, stout; pronotum quadrate, somewhat narrowed posteriorly; prosternum not greatly elongate; elytra not extending much farther posteriorly than the metasternum, punctate; abdomen margined; sternites of first and second segments not present.

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[1] Proc. U. S. Nat. Mus., vol. 92, pp. 75–90, 1942.

[2] Coleopterorum catalogus, pars 19, vol. 5, p. 4, 1910.

Remarks.—This is a small tropical American genus of which the species are very uniform in appearance. After repeated attempts I am unable to separate the West Indian specimens into more than one species. Since one of Bierig's names is available, it is adopted for the specimens I have examined.

I have examined 140 specimens of our species of this genus. Of these 28 are in the British Museum, 14 are in the collections of the United States National Museum, and 98 were collected by me during 1935–37.

The specimens in the British Museum were labeled *H. praecox* Erichson and *H. hostilis* Fauvel. The former is a misplaced specimen of a *Lispinus*, and the latter (28 examples) are a misidentification of *H. insulanus* Bierig as described herein.

1. HYPOTELUS INSULANUS Bierig

Hypotelus insulanus Bierig, 1934e, pp. 343, 344, figs. 2, 3.

Description.—Piceous to rufotestaceous, elytra testaceous. *Head* more finely and irregularly punctate than pronotum, feebly and confusedly but moderately densely strigulose; basal segment of antenna in male more or less tuberculate, the tubercle being merely a carinate prominence on the upper inner edge. *Pronotum* three-tenths wider than long, sides rounded and gradually narrowed posteriorly from the middle or apical two-fifths, just visibly emarginate before the posterior angles; midline slightly elevated, smooth; sometimes with a pair of irregular foveae before base; punctures moderately coarse, separated by one to three times their diameter; strigulae obsolescent in places. *Elytra* scarcely longer than wide, hind angles broadly rounded; punctation shallow but otherwise similar to that of pronotum, occasionally with a trace of serial arrangement; not at all strigulose. Length, 2 mm.

Type locality.—Cuba, Aspiro, at base of the Sierra del Rosario.

Types.—Described from five examples collected March 28, 1934. Types are not mentioned in the description but are presumably in the collection of Alexander Bierig, Habana, Cuba. (One "cotype" is in the United States National Museum, No. 52699.)

Records.—The following are the records known to me:

Cuba: Aspiro (Bierig, 1934), Cayamas (Schwarz, in U.S.N.M.).

Jamaica: Bath in St. Thomas (Blackwelder station 392B), Morant Bay (Blackwelder station 386A), Trinityville (Blackwelder station 428), Santa Cruz (Blackwelder station 421).

Hispaniola: Dominican Republic, Jarabacoa (Darlington, in M.C.Z. and U.S.N.M.).

St. Vincent: (British Museum).

Specimens examined.—I have seen the paratype and 13 other examples in the United States National Museum, 28 in the British Museum under the name *H. hostilis* Fauvel, three from the Museum of Comparative Zoology, and 98 collected by Chapin and Blackwelder in 1935–37.

Remarks.—I am unable to segregate these specimens into more than one species. There is considerable variation in my large series in the punctation and sculpture, in the pronotal foveae, and in other characters.

This species can be distinguished from the Central American *H. hostilis* Fauvel by the presence of ground sculpture on the pronotum, the absence of basal depressions on the pronotum, and the evenly spaced pronotal punctures.

Sr. Bierig records this species from under the bark of a "gum" tree (tropic birch ?). Our Cuban specimens were collected "on ceiba"; that is, on a silk cotton tree, presumably under the bark. The Jamaica examples were taken from under bark of the silk cotton tree and the tropic birch, as well as flying at dusk.

II. Genus PIESTUS Gravenhorst

Piestus Gravenhorst, 1806, p. 223.
Trichocoryne Gray, 1832, p. 306.
Tricoryna Laporte, 1834, p. 126 (misspelling).
Trichocoryna Brullé, 1837, p. 91 (misspelling).
Subgenus *Zirophorus* Dalman, 1821, p. 372.
    Zyrophorus Latreille, 1832, p. 77 (misspelling).
    Irenaeus Leach, seq. Latreille, 1832, p. 87 (as synonym of *Zyrophorus*).
    Iraeneus Lacordaire, 1854, p. 127 (misspelling).
Subgenus *Antropiestus* Bernhauer, 1917a, p. 45.

Genotype.—*P. sulcatus* Gravenhorst (monobasic). Of *Trichocoryne*, *Zirophorus penicillatus* Dalman = *Trichocoryne penicillatus* (Dalman) (monobasic); of *Zirophorus* and *Irenaeus*, *Z. fronticornis* Dalman = *I. fronticornis* (Dalman) (designated here); of *Antropiestus*, *A. andinus* Bernhauer (as *Piestus* (*Antropiestus*) *andinus* Bernhauer) (monobasic).

Diagnosis.—Body broad, depressed, glabrous, shining; head with impressions on vertex; eyes well developed but not prominent, antennae elongate, segments 4 to 10 pubescent; mandibles dentate; last segment of maxillary palpus longer than the third, labial palpi short, filiform; gula narrow, elongate; pronotum quadrate; prosternum not exceedingly elongate; anterior coxae globose or transverse, not projecting; anterior tibiae dentate externally; elytra generally striate (always in our species), not extending beyond metasternum posteriorly; alate; posterior coxae contiguous, "transverse" (in the usage of previous writers, but "not expanded laterally and caudally" in the usage of Blackwelder, 1936, p. 76); abdomen margined; sternites of first and second segments not present.

Remarks.—With the exception of *P. capricornis* Laporte all the West Indian species belong to the subgenus *Piestus* (s. str.), which is characterized by its unarmed head, smooth pronotal disk, and striate elytra. *P. capricornis* belongs to the subgenus *Zirophorus* Dalman, characterized by the two horns on the front of the head. It is doubtfully West Indian. Another species of *Piestus* is recorded by Leng and Mutchler (1914, p. 403) from Haiti; it is *P. mexicanus* Castelnau. The type in the British Museum is very distinct from all West Indian examples of the genus I have seen and leads me to assume that the record is based on a misidentification. Specimens of a *Piestus* from Cuba, Haiti, and Trinidad in the British Museum were identified by Dr. Cameron as *P. minutus* Erichson. They differ, however, from Central and South American examples of *minutus* in the same collection by the sculpture of the head and the punctation of the pronotum. They are herein assigned to *P. penicillatus* (Dalman).

I collected 268 examples of our species of this genus during 1935–37; 62 examples were already in the collections of the United States National Museum; and 198 examples were studied in the collections of the British Museum. In addition to these I have seen 25 examples from the Museum of Comparative Zoology and 3 from the American Museum of Natural History.

KEY TO WEST INDIAN SPECIES OF PIESTUS

1.	Front of head prolonged as two horns	5. capricornis
	Front of head not prolonged	2
2.	Elytra with six striae	1. sulcatus
	Elytra with sixth stria obsolescent	3
3.	Sulci of pronotum one-third length of pronotum or less	4
	Sulci about one-half length of pronotum	4. pygmaeus
4.	Pronotal sculpture very fine and sparse; large discal area smooth	3. penicillatus
	Pronotal sculpture comparatively coarse and very dense; only a small smooth area	2. fulvipes

1. PIESTUS SULCATUS Gravenhorst

Piestus sulcatus Gravenhorst, 1806, p. 224.—LePeletier and Serville, 1825, p. 123.—Erichson, 1840, p. 835.—Lacordaire, 1854, p. 128.—Sharp, 1876, p. 407.—Bernhauer and Schubert, 1910, p. 7. (Not Laporte, 1834.)

Description.—Piceous to rufotestaceous. *Head* with supra-antennal tumescences very feeble, united behind by a ridge feebly set off from vertex, and separated from the feebly convex central clypeal area only by two shallow foveae; clypeus not separated from transverse ridge; sparsely, moderately coarsely punctate throughout and very distinctly strigulose; gular sutures impressed, leaving gula convex. *Pronotum* truncate before and behind, sides rounded; width to length as 3 to 2; middle moderately impressed; lateral sulci coarse, extending to middle of length; sparsely not finely punctate; densely and very distinctly strigulose. *Elytra* with striae rather coarsely punctate, intervals punctured as pronotum; sixth stria complete, wide, coarsely punctate, usually briefly double near humerus; a vague seventh stria on deflexed portion, which is rather coarsely sculptured. Length, 3½ to 4½ mm.

Type locality.—Brazil.

Types.—Presumably in Zoologisches Universität Museum, Breslau.

Records.—The following are the records known to me:

Cuba: (Laporte, 1835).
Dominica: (Blackwelder stations 237, 246B).
St. Lucia: (Blackwelder stations 220D, 220G, 220H, 226, 227, 231).
St. Vincent: (British Museum).
Grenada: (Blackwelder station 132).
Trinidad: St. Augustine (Weber, in M.C.Z.).
South America: BRAZIL (Gravenhorst, 1806; LePeletier and Serville, 1825; Fauvel, 1865; Sharp, 1876; British Museum; U.S.N.M.).

Specimens examined.—I have examined 33 examples in the British Museum, 1 in the United States National Museum, 1 in the Museum of Comparative Zoology, and 104 collected by me in 1935–37.

Remarks.—This species also appears to follow the cocoa cultivation. Besides from the decaying cocoa pods, I have taken this species under dry dung and under fermenting chips on breadfruit tree stumps.

2. PIESTUS FULVIPES Erichson

Piestus fulvipes ERICHSON, 1840, p. 833.—LACORDAIRE, 1854, p. 128.—FAUVEL, 1865, pp. 22, 27.—FLEUTIAUX and SALLÉ, 1889, p. 382.—BERNHAUER and SCHUBERT, 1910, p. 7.—LENG and MUTCHLER, 1914, p. 403.

Description.—Rufopiceous. *Head* with supra-antennal tumescences very large and prominent, joined to the posterior ridge which is much lower and divided at the midline by a deep notch, and separated from the triangular upper part of the clypeus by an irregular V-shaped depression, which continues to the sides where it separates the lateral clypeal prominences from the supra-antennal; clypeus abruptly declivous in front, very irregularly and somewhat coriaceously sculptured; vertex strigulose (prominences obsoletely so); no punctures except behind the posterior ridge; gular sutures scarcely at all impressed, gula nearly even with postoccipital areas. *Pronotum* quadrate; width to length as 3 to 2⅓; midline finely and evenly impressed, impunctate; lateral sulci feeble, not exceeding one-third the length of pronotum; sparsely, finely, and very irregularly punctate; confusedly strigulose, more regularly at sides. *Elytra* with striae moderately punctate; intervals finely irregularly punctate; sixth stria marked by a short impressed line at basal third and scattered punctures posteriorly. Length, 7 mm.

Type locality.—Guadeloupe, Pointe-a-Pitre.

Types.—One example in the British Museum from the Chevrolat collection. Collected by F. de L'Herminier.

Records.—The following are the records known to me:

[Hispaniola: HAITI (Leng and Mutchler, 1914).]

Guadeloupe: (Erichson, 1840; Fauvel, 1865; Fleutiaux and Sallé, 1889; Leng and Mutchler, 1914; British Museum).

Specimens examined.—Three examples of this species were studied in the British Museum, and one of these was afterward borrowed for further study.

Remarks.—This species has apparently been collected only once, probably at the same time as *P. capricornis.* If this is so, then the remarks under *capricornis* apply equally here, and this also must be regarded as a doubtful West Indian record. The record of Haiti by Leng and Mutchler is unsupported by any specimens or data known to me and is distinctly to be questioned.

Nothing has been recorded concerning the habits of this species.

3. PIESTUS PENICILLATUS (Dalman)

Zirophorus penicillatus DALMAN, 1821, pp. 375, 376; 1823, pp. 24, 25.—LEPELETIER and SERVILLE, 1828, p. 818.—GRAY, 1832, p. 306.—ERICHSON, 1840, p. 834.—FAUVEL, 1865, p. 27.—SHARP, 1887, p. 711.

Trichocoryne striata GRAY, 1832, p. 306.—ERICHSON, 1840, p. 834.—FAUVEL, 1865, p. 29.—BERNHAUER and SCHUBERT, 1910, p. 7.

Trichocoryne penicillatus (Dalman) GRAY, 1832, p. 306.—ERICHSON, 1840, p. 834.—FAUVEL, 1865, p. 29.

Piestus pacnicillatus LAPORTE, 1834, p. 129 (misspelling).

Piestus striatus (Gray) LAPORTE, 1834, pp. 126, 128.—ERICHSON, 1840, p. 834.—BERNHAUER and SCHUBERT, 1910, p. 7. (Not Guérin, 1837, p. 32.)

Piestus penicillatus (Dalman) LAPORTE, 1934, p. 127.—ERICHSON, 1840, p. 834.—LACORDAIRE, 1854, p. 128.—SCRIBA, 1855, p. 302.—FAUVEL, 1865, pp. 23, 27.—SHARP, 1887, p. 711.—BERNHAUER and SCHUBERT, 1910, p. 7.

Piestus erythropus ERICHSON, 1840, p. 834.—LACORDAIRE, 1854, p. 128.—DUVAL, 1857, p. 46.—FAUVEL, 1863, p. 444; 1865, pp. 23, 28, 29, 30.—SHARP, 1887, p. 713.—BERNHAUER and SCHUBERT, 1910, p. 7.—LENG and MUTCHLER, 1914, p. 403.—WOLCOTT, 1924, p. 77.—GOWDEY, 1926, p. 11.—WOLCOTT, 1936, p. 196.

Description.—Piceous to rufopiceous, pronotum sometimes paler. *Head* with large and prominent supraantennal tumescences, connected behind by a complete transverse ridge, and separated from the moderately convex central clypeal area by an even V-shaped depressed line which does not reach the margins; with a few sparse and rather fine punctures; irregularly and obsoletely sculptured before the impressed line, obsoletely strigulose behind it; gula depressed, sutures not separately impressed except at base. *Pronotum* quadrate; width to length as 3 to 2; midline smoothly shallowly impressed; lateral sulci feeble, not more than one-third the length of pronotum; finely sparsely punctate and confusedly strigulose, more regularly and densely at the sides. *Elytra* with striae finely punctate, intervals each with an irregular row of fine punctures; sixth stria represented by a vague impression near humerus or apically, or with a few impressed punctures at basal third. Length, 3½ to 7 mm.

Type locality.—"Guadeloupe." Of *striata* Gray, "West Indies"; of *erythropus*, "Cuba."

Types.—Presumably in the Naturhistoriska Riksmuseum, Stockholm. Of *erythropus*, presumably in the Zoologische Museum, Berlin; of *striata* Gray, unknown.

Records.—The following are the records known to me:

Cuba: (Erichson, 1840; Fauvel, 1863, 1865; DuVal, 1857; Sharp, 1887, as *erythropus;* Leng and Mutchler, 1914, as *erythropus*), Guantanamo (Ramsden, in A. M. N. H.), Soledad (Darlington, in M. C. Z. and U. S. N. M.), Buenos Aires, Trinidad Mountains (Darlington, in M. C. Z.), Upper Ovando River, Oriente (Darlington, in M. C. Z. and U. S. N. M.).

Jamaica: (Gowdey, 1926, as *erythropus*), Bath in St. Thomas (Blackwelder stations 392B, 426B), Liguanea Plain (Brues, in M. C. Z.), Whitfield Hall, Blue Mountains (Darlington, in M. C. Z.).

Hispaniola: (Fauvel, 1863, 1865); HAITI, Kenskoff (Darlington, in M.C.Z. and U.S.N.M.), Morne La Hotte foothills (Darlington, in M.C.Z. and U.S.N.M.); DOMINICAN REPUBLIC, Jarabacoa (Darlington, in M.C.Z.).

Puerto Rico: (Fauvel, 1865; Leng and Mutchler, 1914, as *erythropus;* Wolcott, 1924, 1936), Utuado (Busck and Richmond, in U.S.N.M.), El Yunque (Blackwelder station 351A).

[**St. Bartholomew:** (Erichson, 1840; Fauvel, 1865). Apparently an error for Guadeloupe (see "Remarks.")]

Guadeloupe: (Dalman, 1821, 1823).

St. Lucia: (Blackwelder stations 207A, 207B, 211C, 211D, 444G).

Grenada: (Blackwelder stations 132, 134, 137, 153B; British Museum).

Tobago: (Blackwelder station 116B).

Trinidad: (Busck, in U.S.N.M.), Sans Souci (Blackwelder station 98B), Manzanilla (Blackwelder stations 102, 103A, 104A), Mornga (Blackwelder station 111), Caura Valley (Adamson, as Blackwelder station 444A), St. Augustine (Weber, in M.C.Z. and U.S.N.M.).

[**South America:** VENEZUELA (Scriba, 1855), BRAZIL (Bernhauer and Schubert, 1910).]

[**Central America:** MEXICO (Bernhauer and Schubert, 1910).]

Specimens examined.—One hundred twenty-one examples have been examined: 10 in the British Museum, 31 in the United States

National Museum, 1 in the American Museum of Natural History, 23 from the Museum of Comparative Zoology, and 56 collected by me in 1935–37.

Remarks.—There has been much confusion concerning this species. The following summary is presented in the hope of correcting this:

In 1821 Dalman described the species from "Guadeloupe"; in 1823 he redescribed it from the same locality; and in 1828 LePeletier and Serville described it from the same place. In 1832 Gray described a supposedly new genus, which he called *Trichocoryne* and which he based on a species "from the West Indies" of which he remarked, "It appears to be the same as . . . *Zirophorus penicillatus*" but which he figured on plate 32 as "*Trichocoryne striata*, G. R. Gray" (this is clearly a case of a stillborn synonym, but confusion arose because he also figures on plate 52 a species he calls *Zirophorus striatus* Leach, which is quite a different insect. In 1834 Castelnau cited *striata* Gray as synonym of *Piestus bicornis* Olivier (this was a mistake for the *striata* of Leach but gave rise erroneously to the record of Colombia for *striata* Gray); Castelnau further cited *penicillatus* erroneously as a synonym of *P. sulcatus* Gravenhorst, thereby involving the *sulcatus* records of Cuba, Cayenne, and Brazil, which of course do not apply to the true *penicillatus* Dalman. In 1840 Erichson cited *penicillatus* from Puerto Rico and St. Bartholomew, giving Dalman as the source of the latter (this is presumably an error for Guadeloupe); he further described a new species he called *erythropus* from Cuba and to which he attached as a synonym *striata* Gray (since *striata* Gray was above proved to be a synonym of *penicillatus*, then *erythropus* must likewise be a synonym of it). In 1857 DuVal and in 1863 Fauvel considered *erythropus* from Cuba as a valid species. In 1865 Fauvel cited *penicillatus* from the same islands as Erichson (merely copying the error of St. Bartholomew) and cited *erythropus* from "Santo-Domingo; Cuba; Opelousas, Mexique," with *striata* Gray as synonym. In 1887 Sharp threw doubt on the Mexican record but left the species valid; and finally in 1910 Bernhauer and Schubert accepted *erythropus* (with synonym *striata* Gray) from "Antillen, Mexiko," and *penicillatus* from "Mexiko, Brasilien" (this last record must be either an error or based upon new material, and the type locality is omitted). The uniting of *erythropus* with *penicillatus* in the present study leaves us with unquestioned records for the one species from Guadeloupe, Puerto Rico, Cuba, and Hispaniola, and my collections extend these throughout the islands to Trinidad.

This species is somewhat variable in the extent of the traces of the sixth stria.

Schwarz recorded this species (on specimens in the United States National Museum) "on ceiba" (silk cotton tree). I collected it from under bark of logs of the same tree, in rotten coconut husks, in old banana stalks, and in rotten cocoa pods. Specimens from the Museum of Comparative Zoology are labeled "fermenting palm" and "bark of log."

4. PIESTUS PYGMAEUS Laporte

Piestus pygmaeus LAPORTE, 1834, pp. 127, 130.—ERICHSON, 1840, p. 835.—LACORDAIRE, 1854, p. 128.—FAUVEL, 1865, pp. 23, 33, 34.—SHARP, 1876, p. 407; 1887, pp. 713, 721.—FLEUTIAUX and SALLÉ, 1889, p. 382.—BERNHAUER and SCHUBERT, 1910, p. 7.—LENG and MUTCHLER, 1914, p. 403.—BÖVING and CRAIGHEAD, 1931, p. 114.—SCHEERPELTZ, 1933, p. 994.

Piestus rufipennis CHEVROLAT, MS.—FLEUTIAUX and SALLÉ, 1889, p. 382.

Description.—Piceous to rufopiceous, elytra rufotestaceous. *Head* flat, with supraantennal tumescences very feeble, merging posteriorly into the flat surface of the vertex, separated from the feebly convex central clypeal area by a well-impressed U-shaped line which curves outward at the sides and is continued as a black line to the side margins; sparsely and rather finely punctate, and distinctly strigulose throughout (more finely and densely on the clypeus); gular sutures impressed, leaving gula convex through most of its length. *Pronotum* quadrate, sides feebly rounded; width to length as 3 to 2; midline feebly impressed and irregularly punctate; lateral sulci coarse, extending nearly to middle of length; sparsely and finely punctate with scattered larger punctures especially near the depressions, obsoletely strigulose at the sides and base only. *Elytra* with striae finely punctate, intervals each with an irregular row of moderately fine punctures; sixth stria represented by an irregular band of punctures. Length, 3 to 3¾ mm.

Type locality.—Colombia.

Types.—Two examples on one card in the British Museum.

Records.—The following are the records known to me:

[**Hispaniola:** HAITI (Leng and Mutchler, 1914).]

Guadeloupe: (Fauvel, 1865; Sharp, 1887; Fleutiaux and Sallé, 1889; Leng and Mutchler, 1914), Gourbeyre (A.M.N.H.).

Dominica: (Blackwelder station 237).

St. Lucia: (Blackwelder stations 220E, 220G, 220H, 221, 226, 230).

St. Vincent: (British Museum).

Grenada: (British Museum).

Trinidad: (British Museum), Caura Valley (Adamson, as Blackwelder station 444A), Mt. Tucuche (Darlington, in M.C.Z.).

South America: BRAZIL (Erichson, 1840; Fauvel, 1865; Sharp, 1876, 1887; Böving and Craighead, 1931; British Museum), ARGENTINA (British Museum), COLOMBIA (Castelnau, 1834; Erichson, 1840; Fauvel, 1865; British Museum).

Central America: PANAMA (Sharp, 1887; British Museum; U.S.N.M.), NICARAGUA (Sharp, 1887; British Museum), GUATEMALA (Fauvel, 1865; Sharp, 1887; British Museum; U.S.N.M.), BRITISH HONDURAS (Sharp, 1887; British Museum; U.S.N.M.), MEXICO (Fauvel, 1865; Sharp, 1887; British Museum; U.S.N.M.).

Specimens examined.—I have examined 151 examples in the British Museum, 1 borrowed from the Museum of Comparative Zoology, 2 in the American Museum of Natural History, 30 in the United States National Museum, and 108 collected by me in 1935–37.

Remarks.—This widespread species apparently inhabits the West Indies as far north as cocoa is grown in abundance. The northern islands grow cocoa in small quantities, but I was not able to collect there at the proper season to determine the complete range of this insect. Besides the cocoa pods from which I took it frequently, I found it under chips on fresh stumps of the breadfruit tree.

The record of this species from Haiti by Leng and Mutchler is at least possibly a misidentification.

5. PIESTUS CAPRICORNIS Laporte

Piestus capricornis LAPORTE, 1834, pp. 127, 129.—ERICHSON, 1840, p. 833.—LACORDAIRE, 1854, p. 128.—FAUVEL, 1865, pp. 22, 26, 27.—SHARP, 1876, p. 406; 1887, p. 711.—FLEUTIAUX and SALLÉ, 1889, p. 382.—BERNHAUER and SCHUBERT, 1910, p. 6.—LENG and MUTCHLER, 1914, p. 403.

Zirophorus capricornis (Laporte) SHARP, 1887, p. 711.—BERNHAUER and SCHUBERT, 1910, p. 6.

Piestus muticus FAUVEL, 1902, p. 22 (as variety).—BERNHAUER and SCHUBERT, 1910, p. 6 (as variety).

Description.—Rufopiceous. *Head* with two feeble horns, short, thick, and directed forward; deeply foveate between the eyes, triangular area between depression elevated and smooth; very sparsely and rather finely punctate. *Pronotum* nearly twice as wide as long, sides straight; smooth, scarcely punctate at sides but with a few moderately large and shallow punctures at center of disk; minutely strigulose at sides; midline finely impressed. *Elytra* with strong punctate striae, sixth abbreviated at middle, sometimes impressed at apex. Length, 11⅓ mm.

Type locality.—Guadeloupe, Pointe-a-Pitre. (Castelnau cited this species from "Cayenne," but the type is labeled "*Piestus capricornis* Lap. Type ex coll. Chevrolat. Guadeloupe. L'Herminier" and "Pointe-a-Pitre.")

Types.—One example from the Chevrolat collection labeled type in the British Museum.

Records.—The following are the records known to me:

Guadeloupe: (Laporte, 1834; Erichson, 1840; Fauvel, 1865; Fleutiaux and Sallé, 1889; Leng and Mutchler, 1914).

South America: CAYENNE (Laporte, 1834; Fauvel, 1865), BRAZIL (Fauvel, 1902, as *muticus*; Bernhauer and Schubert, 1910, as *muticus*).

Specimens examined.—The type is the only example seen.

Remarks.—This species belongs to the subgenus *Zirophorus* as defined by Sharp (1887, p. 711). There is at least considerable doubt of the West Indian records, and I expect that further collecting will show the species to be strictly South American.

Nothing has been recorded concerning the habits of this species.

Subfamily OMALIINAE

This subfamily is poorly represented in most tropical regions but may be immediately recognized by the pair of ocelli on the vertex of the head. Ocelli occur in no other West Indian staphylinids, but a single ocellus does occur in species of at least one other group in other parts of the world. These beetles commonly occur on flowers but with us are often taken on decaying fruit.

Two genera are here recorded from the West Indies.

KEY TO WEST INDIAN GENERA OF OMALIINAE

1. Mesosternum usually more or less carinate; coarsely punctate above -- **IV. Omalium**
   Mesosternum not carinate; not coarsely punctate above-- **III. Phloeonomus**

III. Genus PHLOEONOMUS Heer

Phloeonomus Heer, 1838a, p. 184.
Distemmus LeConte, 1861, p. 69.
Phlaeonomus Fauvel, 1868a, p. 48 (misspelling).
Subgenus *Phloeostiba* Thomson, 1861, p. 208.
Subgenus *Xylostiba* Ganglbauer, 1895, p. 731.
Subgenus *Xanthonomus* Bernhauer, 1926, p. 312.

Genotypes.—*Omalium pusillum* Gravenhorst=*Phloeonomus pusillus* (Gravenhorst) (designated here); of *Distemmus*, *Trogophloeus argus* LeConte=*Distemmus argus* (LeConte) (monobasic); of *Phloeostiba*, *Staphylinus planus* Paykull=*Omalium planum* (Paykull) of Gyllenhal=*Phloeostiba plana* (Paykull) of Thomson (designated here); of *Xylostiba*, *Omalium monilicorne* Gyllenhal=*Phloeonomus* (*Xylostiba*) *monilicornis* (Gyllenhal) (monobasic); of *Xanthonomus*, *Phloeonomus* (*Xanthonomus*) *toxopeanus* Bernhauer (monobasic).

Diagnosis.—Body depressed; head subtriangular; with two ocelli posteriorly; gula wide, narrowed anteriorly; antennae moderately long, five apical segments enlarged and densely pubescent; labrum transverse, truncate or somewhat rounded; mandible short; third segment of maxillary palpus enlarged, fourth more slender and nearly as long as first three; pronotum transverse; anterior coxal cavities confluent, widely open behind; anterior coxae transverse, not prominent; mesosternum not carinate; elytra extending beyond metasternum posteriorly; posterior coxae contiguous, transverse, scarcely expanded under the femora; abdomen widely margined; sternites of first and second segments not present; femora unarmed, tibiae spinose, fifth tarsomere longer than first four.

Remarks.—This is a boreal genus but is represented in the American Tropics by more species than *Omalium*. It is distinguished from *Omalium* principally by not having the mesosternum carinate.

One species only is known from the West Indies.

1. PHLOEONOMUS PEDICULARIUS (Erichson)

Omalium pedicularium ERICHSON, 1840, p. 887.—FAUVEL, 1866, p. 14, 16.—LENG and MUTCHLER, 1914, p. 403.—WOLCOTT, 1924, p. 77; 1936, p. 196.

Homalium pedicularium (Erichson) GEMMINGER and HAROLD, 1868, p. 667.

Homalium lacrymale FLEUTIAUX and SALLÉ, 1889, p. 381.

Phloeonomus pedicularius (Erichson) BERNHAUER and SCHUBERT, 1910, p. 59.

Omalium lacrymale (Fleutiaux and Sallé) BERNHAUER and SCHUBERT, 1910, p. 54.

Omalium lachrymale LENG and MUTCHLER, 1914, p. 403.

Description.—Piceous to piceocastaneous, pronotum and base of abdomen castaneous, elytra testaceous with scutellar area, outer margin, and wide apical band piceocastaneous (sometimes testaceous with head and elytral markings darker). *Head* with vague depressions above base of antennae and in front of antennae; not punctate but with distinct scaly ground sculpture. *Pronotum* nearly one-half wider than long, evenly rounded at sides, anterior angles rounded, posterior angles prominent; sides of disk scarcely explanate; with two vague longitudinal impressions on the disk; the sparse and feeble punctation obscured by the dense scaly sculpture. *Mesosternum* not at all carinate. *Elytra* fully one-fourth wider than pronotum, widest posteriorly, just broader than long; punctures moderate, separated by a little more than their diameter but obscured by the dense but rather feeble scaly ground sculpture. *Abdomen* very minutely punctured; sculpture obsolescent. Length, 1¾ to 2 mm.

Type locality.—Puerto Rico. Of *lacrymale*, Gourbeyre, Guadeloupe.

Types.—In either the Hope Museum, Oxford, or the Zoologische Museum, Berlin; of *lacrymale*, possibly in the Musée National d'Histoire Naturelle, Paris.

Records.—The following are the records known to me:

Cuba: San Juan Mountains (M.C.Z.).

Jamaica: Santa Cruz (Blackwelder station 421), Maggoty (Blackwelder station 402), Trinityville (Blackwelder station 428), Moneague (Blackwelder station 369B), Troy (Blackwelder station 409), Montego Bay (A.M.N.H.), Cinchona (A.M.N.H.).

Hispaniola: Dominican Republic, Santiago (U.S.N.M.).
Puerto Rico: (Erichson, 1840; Fauvel, 1866; Leng and Mutchler, 1914; Wolcott, 1924, 1936).
Guadeloupe: (Fleutiaux and Sallé, 1889, as *lacrymale;* Leng and Mutchler, 1914, as *lachrymale*); Gourbeyre (A.M.N.H.).
Grenada: (Blackwelder stations 132, 137, 153A).
Trinidad: Manzanilla (Blackwelder station 103A).

Specimens examined.—I have examined 2 specimens in the United States National Museum, 5 in the American Museum of Natural History, 1 in the Museum of Comparative Zoology, 6 collected by Chapin and Blackwelder in Jamaica, and 300 collected by me in 1935–37.

Remarks.—In the Bernhauer and Schubert catalog *pedicularius* is placed in the genus *Phloeonomus* and *lacrymale* in the true *Omalium.* I am unable to separate them in the material at hand and find no records of either species having been taken since the original description. Whether the species is found also in South America is not known to me, but it seems distinct from the two described species from that region, as well as from the Central American ones.

I have collected this species in rotting cocoa pods, under fermenting chips on a fresh stump, flying at dusk, and in a mixed lot from fungus and rotten grapefruit.

IV. Genus OMALIUM Gravenhorst

Omalium Gravenhorst, 1802, p. 111.
Ochthexenus Motschulsky, 1860a, p. 546.
Homalium Gemminger and Harold, 1868, p. 665 (emendation).
Ornalium Wolcott, 1924, p. 77 (misspelling).
Subgenus *Stenomalium* Bernhauer, 1939, p. 194.

Genotypes.—*Staphylinus rivularis* Paykull = *Omalium rivulare* (Paykull) (indicated by Duméril, 1806; designated by Latreille, 1810). (The designation of *depressum* by Samouelle, 1819, and of *planum* Paykull by des Gozis, 1886, therefore cannot stand.) Of *Ochthexenus*, *O. clavicornis* Motschulsky (monobasic); of *Stenomalium*, *Omalium* (*Stenomalium*) *rufiventre* Bernhauer (designated here).

Diagnosis.—Body depressed; head broadly triangular; with two ocelli posteriorly; gula wide, narrowed anteriorly; antennae moderately long, five apical segments enlarged and densely pubescent; labrum transverse, feebly emarginate; mandibles short; third segment of maxillary palpus enlarged, fourth nearly as long as first three; pronotum transverse; anterior coxal cavities confluent, widely open behind; anterior coxae transverse, not prominent, mesosternum more or less carinate; elytra extending beyond the metasternum posteriorly; posterior coxae contiguous, transverse, scarcely expanded under the femora; abdomen widely margined; sternites of first and second segments not present; femora unarmed, tibiae spinose, fifth segment of hind tarsi longer than first four together.

Remarks.—This is a boreal genus that is very poorly represented in the American Tropics. At least several of the species described by Sharp from Central America will be found to belong to the genus *Phloeonomus* rather than to *Omalium.*

I have seen 34 specimens, which I assign to 4 species. These are found only in the Greater Antilles.

KEY TO WEST INDIAN SPECIES OF OMALIUM

1.	Side margins of pronotum distinctly curved up; lateral depression large and deep	4. laborium
	Side margins of pronotum explanate but not curved up; lateral depressions feeble or moderate	2
2.	Smooth preocellar ridges very distinct	1. jamaicensis
	Preocellar ridges feeble	3
3.	Intervals of pronotum distinct, shining	2. darlingtoni
	Intervals of pronotum almost invisible	3. cubanum

1. OMALIUM JAMAICENSIS, new species

Description.—Bright rufous throughout. *Head* broadly elevated along middle; feebly margined above and behind the eyes; feebly narrowed behind eyes to margin, thence abruptly; ocelli prominent at base, not set off by smooth areas; punctures moderate but obscured by ground sculpture. *Pronotum* one-third wider than long; sides rounded in front, without lateral angle, straight from middle to prominent basal angles; strongly explanate at the sides but not up-curved; very feebly foveate at middle of sides; disk very vaguely depressed on either side of midline posteriorly; moderately coarsely and rather densely punctate, the intervals narrow and with traces of ground sculpture. *Elytra* nearly one-third wider than pronotum, one-fourth longer than wide; very feebly explanate at the sides; with coarse punctures, not very dense, but obscured by irregular ground sculpture. *Abdomen* above with moderately coarse but not dense punctures obscured by dense ground sculpture. Length, 1¾ mm.

Type locality.—Jamaica, Yallahs Valley, Blue Mountains.

Types.—Holotype, American Museum of Natural History, collected by J. A. Grosbeck on February 27, 1911.

Records.—The following is the only record known to me:

Jamaica: Yallahs Valley (Grosbeck, in A.M.N.H.).

Specimens examined.—I have seen only the holotype.

Remarks.—This species is distinct in numerous characters, such as the shape of the pronotum and the elytra and the punctation and sculpture of the head, pronotum, elytra, and abdomen.

The type was collected during general sweeping.

2. OMALIUM DARLINGTONI, new species

Description.—Piceous to rufopiceous, the margins rufous. *Head* broadly raised along midline; margined above and behind the eyes; feebly narrowed behind eyes to margin, then abruptly; ocelli prominent at base, separated from punctate area by smooth diagonal prominences; punctures moderately large but irregular, intervals sometimes large and shining; in front with ground sculpture only. *Pronotum* one-third wider than long; sides rounded in front, feebly angled at middle, then straight to prominent posterior angles; strongly explanate at sides but not upcurved; feebly foveate at middle of sides; disk with very feeble U-shaped impression; strongly and coarsely punctate, with narrow and convex intervals; with traces of ground sculpture on the intervals. *Elytra* two-sevenths wider than pronotum, just longer than wide; feebly explanate at sides; densely and moderately coarsely but irregularly punctate with traces of ground sculpture on the intervals. *Abdomen* above sparsely and shallowly but not finely punctate; with feeble scaly ground sculpture. Length 2½ to 3 mm.

Type locality.—Jamaica, main range of the Blue Mountains, elevations between 5,000 and 7,388 feet.

Types.—Holotype and 16 paratypes, Museum of Comparative Zoology; nine paratypes in the United States National Museum (No. 52481); collected by Dr. P. J. Darlington on August 17–19, 1934.

Records.—The following is the only record known to me:

Jamaica: Blue Mountains (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the 26 types.

Remarks.—This series shows very little variation and is therefore my principal reason for keeping separate the other three species. The characters used are not striking, yet they seem to be constant and to be sufficient to separate the species if used with care.

I have received no record of the habits of this species.

3. OMALIUM CUBANUM, new species

Description.—Rufopiceous, margins somewhat paler. *Head* broadly raised along midline; margined above and behind the eyes; scarcely narrowed behind eyes to margin; then abruptly; ocelli prominent at base, separated from punctate area by smooth diagonal prominences; punctures moderately large but very irregular, the intervals often large and shining; in front with ground sculpture only. *Pronotum* nearly one-half wider than long; sides feebly arcuate in front, distinctly angled at center, thence straight or slightly emarginate to the distinct basal angles; broadly explanate at sides but not upcurved; very feebly foveate at middle of sides; disk with a distinct U-shaped impression; strongly and coarsely but irregularly punctate, with broad shining convex intervals; without ground sculpture on the disk. *Elytra* about one-fourth wider than pronotum, a little longer than wide; feebly explanate at the sides; coarsely and moderately densely punctate, with narrow and convex intervals; with traces of ground sculpture on the intervals. *Abdomen* above impunctate except for a pair of discal punctures on each segment; with dense ground sculpture. Length, 2 mm.

Type locality.—Cuba, Pico Turquino, summit at 6,000 feet.

Types.—Holotype, Museum of Comparative Zoology, collected by Dr. P. J. Darlington on June 16–21, 1936.

Records.—The following is the only record known to me:

Cuba: Pico Turquino (Darlington, M.C.Z.).

Specimens examined.—I have seen only the holotype.

Remarks.—This species differs from *darlingtoni* and *jamaicensis* also by the punctation of the abdomen. I have little hesitation in describing it from a unique specimen since the series of *darlingtoni* indicates that there is little variation.

I have received no record of its habits.

4. OMALIUM LABORIUM, new species

Description.—Clear rufopiceous throughout. *Head* broadly raised along midline, margined above and behind the eyes; feebly narrowed behind the eyes to margin, then abruptly; ocelli very prominent at base; with very large coarse punctures except in front, separated by irregular convex prominences; in front with distinct almost scaly ground sculpture; submentum and mentum with very coarse punctures; third segment of maxillary palpus not enlarged, fourth elongate, as long as first three together but not more slender than third. *Pronotum* nearly three-fourths wider than long, sides rounded in front but feebly angulate at middle, thence straight to posterior angles, which are prominent; disk strongly explanate at the sides and foveate at middle of sides; with two feeble longitudinal impressions near midline; very strongly and coarsely punctate, with narrow and convex intervals; no ground sculpture. *Elytra* one-twelfth wider than pronotum, just longer than wide; feebly explanate at sides and apex; punctures very coarse and deep, narrowly separated by convex ridges, and sometimes vaguely serial. *Mesosternum* carinate at base and apex only, with distinct ground sculpture. *Abdomen* impunctate except for a pair of large punctures on the disk of each sternite, but with dense scaly sculpture. Length, 2½ to 3 mm.

Type locality.—Haiti, east slope of Morne La Selle at elevation of about 6,000 feet.

Types.—Holotype and two paratypes, females, U.S.N.M. No. 52367, collected by me on August 8, 1935.

Records.—The following are the records known to me:

Hispaniola: Haiti, Morne La Selle (Blackwelder station 22C), La Visité (Darlington, in M.C.Z. and U.S.N.M.); Dominican Republic, Loma Rucilla (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the three types and three specimens from the Museum of Comparative Zoology.

Remarks.—This species seems to be quite distinct from the described American ones. It was found at a high elevation (for the West Indies), similarly to the Central American species recorded by Sharp. The specimens were taken by beating plants along the edge of the jungle, where it was replaced by pine forest.

Subfamily OXYTELINAE

This name has been used for groups of various ranks in recent years, but in the Junk Catalog [3] it is treated as a subfamily, which includes the Piestinae, the Omaliinae, the true Oxytelinae, and the Osoriinae. In this condition it is exceedingly difficult to define the subfamily or to arrange characters so that it may be placed in a key. The Osoriinae, the Omaliinae, and the true Oxytelinae may each be defined readily by a single morphological character of considerable importance, and there seems to be no reason whatsoever for grouping them under one head. Indeed, recent studies indicate that these four groups are not at all closely related, and each of them is therefore treated here as a subfamily.

The Oxytelinae may be recognized among all staphylinids by the presence of a complete sclerite in the second ventral abdominal segment. This gives them an additional "visible ventral segment."

Eight genera have been recorded from the West Indies.

KEY TO WEST INDIAN GENERA OF OXYTELINAE

1.	Elytra dehiscent or inner apical angles rounded	2
	Elytra not dehiscent; inner apical angles not rounded	4
2.	Front tibia with one or two external rows of spines	3
	Front tibia without external rows of spines	X. Thinobius
3.	Front tibia with two rows of spines	XII. Bledius
	Front tibia with one row of spines	XI. Platystethus
4.	Labrum emarginate and dentate at sides	IX. Parosus
	Labrum transverse but not emarginate	5
5.	Front tibia with an external row of spines	VIII. Oxytelus
	Front tibia without external row of spines	6
6.	Body smooth and shining	VII. Apocellus
	Body with more or less dense punctures or sculpture	7
7.	Head very strongly constricted behind	VI. Torrentomus
	Head not very strongly constricted	V. Carpelimus

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[3] Bernhauer and Schubert, 1910.

V. Genus CARPELIMUS Samouelle

Carpelimus Samouelle, 1819, p. 174.
Trogophloeus Mannerheim, 1830, p. 49.
Taenosoma Mannerheim, 1830, p. 50.
Carpalimus Stephens, 1832, p. 324 (misspelling).
Tragophloeus Laporte, 1834, p. 125 (misspelling).
Carpalinus Brullé, 1837, p. 92 (misspelling).
Trogophlaeus Westwood, 1839, p. 172 (misspelling).
Boopinus Klima, 1904, p. 56.
Trogoploeus Eichelbaum, 1909, p. 123, (misspelling).
Subgenus *Teropalpus* Solier, 1849, p. 330.
Trogolinus Sharp, 1900, p. 231.
Subgenus *Thinodromus* Kraatz, 1858, p. 866.
Subgenus *Troginus* Mulsant and Rey, 1879, p. 316.
Subgenus *Amisammus* des Gozis, 1886, p. 5.
Amisanimus Bernhauer and Schubert, 1910, p. 95 (misspelling).

Genotypes.—*C. bilineatus* Stephens (designated by des Gozis, 1886). Of *Trogophloeus*, *Oxytelus corticinus* Gravenhorst=*Trogophloeus corticinus* (Gravenhorst) (monobasic); of *Taenosoma*, *T. gracile* Mannerheim (designated here); of *Boopinus*, *Trogophloeus memnonius* Erichson=*Boopinus memnonius* (Erichson) (designated by Tottenham, 1939); of *Teropalpus*, *T. suturalis* Solier (designation compulsory, since the other two originally included species were doubtfully assigned to the genus); of *Trogolinus*, *Trogophloeus unicolor* Sharp=*Trogolinus unicolor* (Sharp) (designated by Tottenham, 1939); of *Thinodromus*, *Trogophloeus dilatatus* Erichson=*Thinodromus dilatatus* (Erichson) (monobasic); of *Troginus*, *Trogophloeus exiguus* Erichson=*Troginus exiguus* (Erichson) (designated by Sharp, 1887, and by Tottenham, 1939); of *Amisammus*, *Carpalimus arcuatus* Stephens=*Amisammus arcuatus* (Stephens) (monobasic and original designation).

Diagnosis.—Head cylindrical, eyes generally prominent, without ocelli; antennae 11-segmented; labrum large, transverse; maxillary palpus subulate; gular sutures united; pronotum not sulcate; hypomera with a lobe partly behind the coxae; anterior coxal cavities open behind and confluent; front coxae large, exserted; scutellum generally not visible; middle coxal cavities narrowly separated; posterior coxae contiguous, "transverse"; abdomen margined, first sternite absent; tibiae not spinose; tarsi 3-segmented.

Remarks.—This is a very difficult genus. It has not been properly studied in any part of the New World, at least. Careful comparison with types and paratypes has made me reasonably sure of the identification of all but four of the species recorded from the West Indies. A key is presented that includes only the species known to me by specimens. It is considered only as a preliminary attempt and will not be found adequate for all material. Indeed, I have numerous specimens I am unable to place in the key, and I am leaving them aside for the time being. The descriptions are brief but contain the characters upon which my conclusions have been based.

The record of *Trogophloeus corticinus* (Gravenhorst) from Guadeloupe by Leng and Mutchler cannot be verified in the material available to me. It may be the same as the *T. fulvipennis* Fauvel, but I am unable to prove the identity of these two species. I have omitted *T. corticinus* as a doubtful record.

The name *Trogophloeus* has long been used for this genus in spite of the existence of the older name *Carpelimus.* In pointing out this error Tottenham (1939, p. 227) uses the spelling *Carpalimus*, apparently first used by Stephens in 1832. If this name was validated by Samouelle, the original spelling must be accepted, in the absence of proof that it was an error. The arrangement of subgenera is based on the assignment of the genotypes in the Bernhauer and Schubert catalog.

I have examined over 1,500 examples of this genus from the West Indies: 906 are in the British Museum, 63 in Dr. Cameron's collection, 131 in the Museum of Comparative Zoology, 27 in the American Museum of Natural History, 142 in the United States National Museum, and 367 were collected by me during 1935–37. These I assign to 37 species, of which 18 appear to be new.

KEY TO WEST INDIAN SPECIES OF CARPELIMUS [4]

1. Elytra and abdominal tergites with abrupt discal protuberances or carinae ---------- **7. cornucopius**
   Elytra and tergites not modified as above ---------- 2
2. Anterior angles of pronotum prominent, tuberculate, pronotum distinctly hexagonal ---------- 3
   Anterior angles of pronotum not tuberculate; pronotum not distinctly hexagonal ---------- 8
3. Pronotum with a complete transverse arcuate groove near base ---------- **1. croceipes**
   Pronotum without basal groove or interrupted at middle ---------- 4
4. Pronotum very densely sculptured, opaque ---------- 5
   Pronotum not very densely sculptured, shining ---------- 7
5. Elytra finely punctate ---------- **4. correctus**
   Elytra coarsely punctate ---------- **5. darlingtoni**
6. Apical margin of elytra distinctly paler ---------- **6. beattyi**
   Elytra unicolorous ---------- 7
7. Pronotum very feebly punctate or sculptured ---------- **3. sericeus**
   Pronotum rather densely and distinctly sculptured ---------- **2. fulvipes**
8. Pronotum with a complete transverse arcuate groove near base ---------- 9
   Pronotum without basal groove or with it interrupted at middle ---------- 14
9. Pronotum distinctly punctate, generally coarsely so ---------- 10
   Pronotum not distinctly punctate ---------- 11

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[4] The following species have not been recognized in the material available to me and are not included in the key; their original descriptions are placed after the other species: *C. fulvipennis* (Fauvel), *testaceipennis* (Cameron), *sordidus* (Cameron), and *demmeli* (Bierig).

10. Coarse punctures of pronotum distinct ---- 8. **smithi**
Punctures of pronotum not discrete, obscured by ground sculpture ---- 9. **weberi**
11. Pronotum with distinct longitudinal (or diagonal) impressions ---- 12
Pronotum without distinct longitudinal impressions ---- 13
12. Longitudinal depressions forming a deep transverse median groove ---- 13. **borinquensis**
Longitudinal depressions feeble and not forming a deep transverse median groove ---- 12. **obsolescens**
13. Elytra moderately coarsely punctate; pronotum without trace of punctures ---- 11. **impunctus**
Elytra very coarsely punctate; pronotum with fairly distinct shallow punctures near base ---- 10. **hispaniolus**
14. Pronotum with longitudinal depressions (sometimes obsolescent) ---- 15
Pronotum entirely without trace of longitudinal depressions (sometimes midline vaguely elevated) ---- 26
15. Elytra coarsely punctate ---- 16
Elytra moderately or finely punctate ---- 18
16. Punctures of pronotum not distinct, obscured by sculpture ---- 14. **danforthi**
Punctures of pronotum distinct, not obscured by sculpture ---- 17
17. Pronotum distinctly over one-fourth wider than long ---- 18. **aridus**
Pronotum less than one-fourth wider than long ---- 20. **phaios**
18. Pronotum with distinct individual punctures separated by smooth intervals ---- 21. **scrobiger**
Pronotum with very dense punctures or more or less distinct sculpture ---- 19
19. Punctures of pronotum very fine and dense ---- 20
Punctures of pronotum not very fine or very dense (or densely sculptured) ---- 22
20. Elytra black or rufopiceus ---- 22. **petomus**
Elytra rufous or rufotestaceous ---- 21
21. Very slender; eyes not prominent ---- 25. **subtilior**
Moderately stout; eyes very prominent ---- 19. **aeolus**
22. Deep black throughout ---- 15. **cubensis**
At least in part rufescent, rufous, or testaceous ---- 23
23. Elytra distinctly paler at apex ---- 16. **imitator**
Elytra not abruptly paler at apex ---- 24
24. Pronotum shining, not very densely sculptured ---- 25
Pronotum not very shining, densely sculptured ---- 17. **varicornis**
25. Body very slender ---- 25. **prolixus**
Body moderately stout ---- 23. **flavipes**
26. Black, elytra marked with yellow from humerus to apex and along apical margin ---- 28. **discipennis**
Elytra not so marked ---- 27
27. Pronotum with a distinct narrow smooth midline ---- 32. **aequalis**
Pronotum without smooth midline ---- 28
28. Pronotum very densely sculptured, not at all shining ---- 29
Pronotum not very densely sculptured, more or less shining ---- 30
29. Black or piceous throughout ---- 26. **haplomus**
Black, pronotum rufescent, elytra piceorufous with apical third indefinitely piceotestaceous ---- 27. **tunapunae**

30. Sides of pronotum arcuate or straight posteriorly---------------------- 31
    Sides of pronotum distinctly emarginate posteriorly---------- 33. dissonus
31. Pronotum with distinct punctures among sculpture---------- 31. conformis
    Pronotum without distinct punctures among sculpture---------------- 32
32. Elytra moderately coarsely punctate-------------------------- 29. chapini
    Elytra very minutely punctate------------------------------ 30. rulomus

1. CARPELIMUS CROCEIPES (Fauvel)

Trogophloeus arcuatus Fauvel, 1863, p. 439; 1868, p. 379.—Fleutiaux and Sallé, 1889, p. 381.—Bernhauer and Schubert, 1911, p. 95.—Leng and Mutchler, 1914, p. 403. (Not Stephens, 1835.)

Trogophloeus croceipes Fauvel, 1866b, p. 379.—Sharp, 1887, p. 702.—Fleutiaux and Sallé, 1889, p. 381.—Bernhauer and Schubert, 1911, p. 95.—Cameron, 1913, p. 324.—Leng and Mutchler, 1914, p. 403. (Not Bierig, 1935.)

Description.—Black throughout. *Head* rather deeply bi-impressed between the antennal ridges; eyes at nearly half their width from base. *Pronotum* two-fifths wider than long; the sides bituberculate, the anterior angles prominent and tuberculate; disk with two arcuate transverse depressions scarcely interrupted at middle; with large and distinct punctures separated by shining convex intervals; without ground sculpture. *Elytra* with moderately coarse punctures obscured by the irregular surface and traces of ground sculpture. Length, 2½ mm.

Type locality.—Cuba (for both names).

Types.—A unique in the British Museum, labeled "Cuba Poey" (for both names).

Records.—The following are the records known to me:

Cuba: (Fauvel, 1863; Sharp, 1887; British Museum; Bernhauer and Schubert, 1911; Leng and Mutchler, 1914), Sierra del Rosario (Bierig, in U.S.N.M., as *arcuatus*), Hongolosongo, Oriente (Darlington, in M.C.Z.), Daiquiri, Oriente (Darlington, in M.C.Z. and U.S.N.M.), San Blas, Trinidad Mountains (Darlington, in M.C.Z.).

Jamaica: (Hubbard, in U.S.N.M.) Balaclava (Blackwelder station 390A).

Hispaniola: Dominican Republic, Santiago (Darlington, in M.C.Z.). Puerto Plata (Darlington, in M.C.Z. and U.S.N.M.).

Montserrat: (Hubbard, in U.S.N.M.).

Guadeloupe: (Fleutiaux and Sallé, 1889; Leng and Mutchler, 1914).

Specimens examined.—I have seen 2 examples in the United States National Museum and 15 in the Museum of Comparative Zoology, in addition to the type in the British Museum.

Remarks.—This is a very distinct species. It was renamed by Fauvel in 1868 because the earlier name *arcuatus* was preoccupied. The name *croceipes* has been erroneously applied by Bierig to a very different insect, which is herein identified as *smithi* Bernhauer.

The Jamaica examples were found on sticks and leaves more or less submerged in the center of a small stream.

2. CARPELIMUS FULVIPES (Erichson)

Trogophloeus fulvipes Erichson, 1840, p. 804.—Duval, 1857, p. 43.—Fauvel, 1863, pp. 439, 440.—LeConte, 1877, p. 247.—Schwarz, 1878, p. 442.—Sharp, 1887, p. 697.—Fauvel, 1901, p. 71.—Villada, 1901, p. 33.—Bernhauer, 1908a, p. 230.—Bernhauer and Schubert, 1911, p. 99.—Leng and Mutchler, 1914, p. 403.—Notman, 1920, p. 694.—Wolcott, 1924, p. 77.—Bierig, 1935a, pp. 9, 11.—Wolcott, 1936, p. 196.

Trogophloeus rubripennis Fauvel, 1863, p. 440.—Bernhauer and Schubert, 1911, p. 97 (as synonym of *aridus* Duval).—Leng and Mutchler, 1914, p. 403.—Bierig, 1935a, p. 9.

Trogophloeus senilis Sharp, 1880, p. 51.—Fauvel, 1901, p. 71.—Sharp, 1908, p. 543.—Bernhauer and Schubert, 1911, p. 104.

Trogophloeus texanus Casey, 1889b, pp. 332, 334, 335.—Fauvel, 1901, p. 71.—Bernhauer and Schubert, 1911, p. 99.—Notman, 1920, p. 694.

Trogophloeus aequalis Gundlach, 1893, p. 300.—Wolcott, 1924, p. 77. (Not Duval.)

Description.—Head black, pronotum piceous or rufopiceous, elytra rufocastaneous, abdomen piceous. *Head* with two rather feeble depressions between the antennal ridges; eyes separated from base by about one-third their length. *Pronotum* nearly one-third wider than long, irregularly hexagonal, sides without tubercles, anterior angles distinctly tuberculate; disk with two distinct longitudinal depressions; with not very fine but moderately dense punctures, scarcely at all obscured by ground sculpture. *Elytra* moderately finely and densely but distinctly punctate, with very little trace of ground sculpture. Length, 2 to 3 mm.

Type locality.—Puerto Rico. Of *senilis*, island of Oahu, Hawaiian Islands; of *texanus*, Galveston, Tex.; of *rubripennis*, Cuba.

Types.—Either in the Hope Museum, Oxford, or the Zoologische Museum, Berlin. Of *senilis*, in British Museum; of *texanus*, holotype and three paratypes, U.S.N.M. No. 37207, in the Casey collection in the United States National Museum; of *rubripennis*, presumably in the collection of Blanche Rancin, Caën, France.

Records.—The following are the records known to me:

Cuba: (Fauvel, 1901; DuVal, 1857; Fauvel, 1863, as *fulvipes* and *rubripennis*; Leng and Mutchler, 1914, as both; Bierig, 1935, as *fulvipes and rubripennis*), Cayamas (Schwarz, in U.S.N.M.), Baragua (Christenson, in U.S.N.M.; C. F. Stahl, in M.C.Z. and U.S.N.M.), Rio Almendares (Bierig, in U.S.N.M.), Cayajabos (Bierig, in U.S.N.M, as *rubripennis*), Soledad (Darlington, in M.C.Z. and U.S.N.M.), Cauto El Cristo, Oriente (Darlington, in M.C.Z. and U.S.N.M.), Trinidad Mountains (Darlington, in M.C.Z.).

Jamaica: (Fauvel, 1901), Milk River (Blackwelder station 415), Kingston (Blackwelder stations 3, 379), Spanish Town (Blackwelder station 377), May Pen (Blackwelder station 424A), Black River (Blackwelder stations 416, 419), Santa Cruz (Blackwelder station 421), Ocho Rios (Darlington, in M.C.Z.).

Hispaniola: (Fauvel, 1901); Haiti, Bayeux (Hoffman, in U.S.N.M.), Port-au-Prince (Darlington, in M.C.Z.); Dominican Republic, San Francisco Mountains (Busck, in U.S.N.M.), Barahona (Darlington, in M.C.Z. and U.S.N.M.), Puerto Plata (Darlington, in M.C.Z.).

Puerto Rico: (Erichson, 1840; DuVal, 1857; Fauvel, 1863; LeConte, 1877; Sharp, 1887; Fauvel, 1901; Leng and Mutchler, 1914; Notman, 1920; Wolcott, 1924, 1936), Isabela (Hoffman, in U.S.N.M.), Jayuya (Oakley, in U.S.N.M.), Bayamon (Mills, in U.S.N.M.), Guanica (Blackwelder station 355A; Darlington, in M.C.Z. and U.S.N.M.), Lake Cartagena (Blackwelder station 46A), Maricao (Blackwelder station 47A).

St. Croix: (Fauvel, 1901; Blackwelder stations 333, 341, 344).

Guadeloupe: (Fauvel, 1901).

Martinique: (Fauvel, 1901).

St. Vincent: (Fauvel, 1901).

Grenada: (Fauvel, 1901).

South America: BRAZIL, ARGENTINA (Fauvel, 1901).

Central America: GUATEMALA, NICARAGUA, PANAMA (Sharp, 1887); MEXICO, GUATEMALA, NICARAGUA, PANAMA (Fauvel, 1091); MEXICO Villada, 1901).

North America: FLORIDA, LOUISIANA (LeConte, 1877; Sharp, 1887); CALIFORNIA, FLORIDA, LOUISIANA, TEXAS (Fauvel, 1901); TEXAS (Casey, 1889b, as *texanus*); FLORIDA (Schwarz, 1878).

Hawaii: (Fauvel, 1901; Sharp, 1880, as *senilis*).

Specimens examined.—I have seen 34 specimens in the United States National Museum, 35 from the Museum of Comparative Zoology, and 73 collected by me during 1935–37.

Remarks.—I believe this species to be properly identified although specimens labeled *fulvipes* in the British Museum really belong to *correctus* or one of the other species. A specimen from Sr. Bierig shows that his identification of this species is the same as mine.

My specimens were taken from along the sandy banks of streams, on the muddy banks of ponds, from cow dung, and flying at dusk.

3. CARPELIMUS SERICEUS (Cameron)

Trogophloeus (*Boopinus*) *sericeus* CAMERON, 1923, p. 392.—SCHEERPELTZ, 1933, p. 1088.

Trogophloeus (s. str.) *sericeus* Cameron, SCHEERPELTZ, 1933, p. 1088.

Trogophloeus sextagonalis BIERIG, 1935, p. 10, fig. 1.

Description.—Black, pronotum and elytra sometimes feebly rufescent. *Head* with two feeble depressions between the antennal ridges; eyes separated from base by only a ridge. *Pronotum* over one-fourth wider than long, irregularly hexagonal, sides without tubercles, the anterior angles very prominent and coarsely tuberculate; disk with two moderate longitudinal depressions; with rather fine and irregular punctures feebly obscured by ground sculpture. *Elytra* with moderate punctures of irregular shape and obscured by indefinite ground sculpture. Length 2½ to 3 mm.

Type locality.—Jamaica. Of *sextagonalis*, Cuba.

Types.—Three examples in Dr. Cameron's collection. Of *sextagonalis*, in Bierig collection; and one cotype in the United States National Museum (No. 52710).

Records.—The following are the records known to me:

Cuba: Caimito del Guayabal (Bierig, 1935; Bierig, in U.S.N.M.), Laguna La Canao (Bierig, 1935), Cayajabos (Bierig, 1935), Rio Almendares (Bierig, 1935.) (All these as *sextagonalis.*)

Jamaica: (Cameron, 1923; Scheerpeltz, 1933), Santa Cruz (Blackwelder station 421), Black River (Blackwelder station 416), May Pen (Blackwelder station 425B).

St. Croix: (Blackwelder station 332).

Specimens examined.—I have seen three examples in Dr. Cameron's collection, one in the United States National Museum, and nine collected by me during 1935–37.

Remarks.—Although I have not compared directly any Cuban examples of *sextagonalis* with the type of *sericeus*, I have no doubt of the identity of these two species, since a "cotype" of *sextagonalis* received from Sr. Bierig is exactly similar to specimens I had previously compared with the type of *sericeus*.

This species is quite similar to *beattyi* and *fulvipes* but seems to be readily distinguishable from them by color and the details of punctation.

My specimens were taken from the muddy banks of ponds, from bat guano, and flying at dusk.

4. CARPELIMUS CORRECTUS, new species

Description.—Head black, pronotum piceorufous, elytra rufous, abdomen piceocastaneous. *Head* with two moderate depressions between the antennal ridges; eyes at about half their length from base. *Pronotum* over one-third wider than long, irregularly hexagonal, sides not tuberculate, the anterior angles prominent and tuberculate; disk with two feeble longitudinal depressions along the median posterior ridge; with very dense granular ground sculpture. *Elytra* with rather fine punctures very irregular and obscured by the irregular ground sculpture. Length, 2¼ to 2½ mm.

Type locality.—St. Lucia, the Roseau River about 6 miles south of Castries, elevation 250 feet.

Types.—Holotype and 14 paratypes, U.S.N.M. No. 52431, collected by me on March 29, 1936.

Records.—The following are the records known to me:

Jamaica: (Hubbard, in U.S.N.M.; Cameron collection), Trinityville (Blackwelder station 428), Milk River (Blackwelder station 415), Spanish Town (Blackwelder station 377), Troy (Blackwelder station 409), Kingston (Darlington, in M.C.Z.).

Hispaniola: Haiti (Cameron collection); Dominican Republic, Sanchez (Darlington, in M.C.Z.).

Puerto Rico: Maricao (Blackwelder station 47A).

St. Croix: (Blackwelder station 341).

Guadeloupe: Gourbeyre (A.M.N.H.).

St. Lucia: (Blackwelder stations 209A, 211A; Cameron collection).
Barbados: (Blackwelder stations 193A, 200, 202A).
St. Vincent: (Blackwelder station 170; British Museum).
Grenada: (British Museum).
Trinidad: St. Augustine (Withycombe, in British Museum; Darlington, in M.C.Z.).

Specimens examined.—I have seen 33 examples in the British Museum, 14 in the collection of Dr. Cameron, 2 in the American Museum of Natural History, 3 in the Museum of Comparative Zoology, 1 in the United States National Museum, and 34 collected by me during 1935–37.

Remarks.—This species has stood under the name *fulvipes* in collections, but that seems to be more properly applied to another, which is distinguished by having the pronotum not opaque. This species probably will be found on all the islands.

My specimens were found under stones and sand along streams, in dung, and flying at dusk.

5. CARPELIMUS DARLINGTONI, new species

Description.—Piceous, pronotum and elytra somewhat rufescent, abdomen castaneous. *Head* with two feeble depressions between the antennal ridges; eyes at about half their length from base. *Pronotum* three-sevenths wider than long, not distinctly hexagonal because of the curvature of the base and sides; lateral and anterior angles distinctly tuberculate, basal angles very prominent; disk with two distinct long longitudinal impressions and vague depressions laterally; with very dense granular ground sculpture. *Elytra* with punctures not very fine but very indistinct and mixed with irregular ground sculpture. Length, 3¼ mm.

Type locality.—Hispaniola, San José de las Matas, Dominican Republic, elevation 1,000 to 2,000 feet.

Types.—Holotype, Museum of Comparative Zoology, collected by Dr. P. J. Darlington in June 1938.

Records.—The following is the only record known to me:

Hispaniola: DOMINICAN REPUBLIC, San José de las Matas (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the holotype.

Remarks.—This species differs from *correctus* in having the sides of the pronotum tuberculate as well as in the coarser punctation of the elytra.

I have received no record of its habits.

6. CARPELIMUS BEATTYI, new species

Description.—Head black, pronotum piceous to rufous, elytra piceocastaneous or rufocastaneous, with apical margin distinctly testaceous, abdomen piceocastaneous. *Head* with two moderate depressions between the antennal ridges; eyes at about one-fourth their length from base. *Pronotum* over one-fourth wider than long, irregularly hexagonal, sides with a single very blunt tubercle within each posterolateral emargination, the anterior angles prominent and bluntly tuberculate; disk with two very feeble longitudinal impressions; with rather fine punctures obscured by indefinite ground sculpture. *Elytra* with rather fine punctures of irregular shape and obscured by indefinite ground sculpture. Length, 2½ to 3 mm.

Type locality.—St. Croix, Wheel of Fortune Estate, one-half mile east of Frederiksted.

Types.—Holotype and 13 paratypes, U.S.N.M. No. 52467, collected by me on November 17, 1936.

Records.—The following are the records known to me:

Hispaniola: HAITI, Diquini (Mann, in M.C.Z.); DOMINICAN REPUBLIC, Rio San Juan (Miller, in U.S.N.M.).
St. Croix: (Blackwelder station 332).
Guadeloupe: Basse Terre (Blackwelder station 79C).
St. Lucia: (Blackwelder stations 209A, 211A).

Specimens examined.—I have seen 4 specimens in the United States National Museum in addition to the 14 types, and 1 in the Museum of Comparative Zoology.

Remarks.—This species can be distinguished at once by the testaceous apical margin of the elytra. It is somewhat variable in the strength of the pronotal ridges and depressions.

My specimens were taken from bat guano, from beneath rotting fruit, and from under stones and sand along streams.

7. CARPELIMUS CORNUCOPIUS, new species

Description.—Rufocastaneous, head piceous. *Head* with two feeble depressions between the abrupt antennal ridges; the eyes at very nearly their length from base; antennae very slender, extending to apex of elytra. *Pronotum* one-fifth broader than long, distinctly hexagonal; anterior angles scarcely tuberculate, lateral angles rounded, basal angles rather abrupt; disk with two distinct longitudinal impressions united near base, and with vague depressions laterally; with dense but not fine punctures distinct; without ground sculpture. *Elytra* behind humerus with a series of tubercles and gradually elevated to apical fourth into a spatulate posteriorly directed horn; with punctures as on pronotum but a little less dense; without sculpture. *Abdomen* with tergites 7 to 8 each with a pair of short abrupt longitudinal carinae. Length, 3⅔ mm.

Type locality.—Grenada, 6 miles southeast of Gouyave on road to Grenville.

Types.—Holotype in the United States National Museum, No. 52356, collected on January 24, 1936.

Records.—The following is the only record known to me:

Grenada: (Blackwelder station 155).

Specimens examined.—I have seen only the holotype.

Remarks.—This species may be recognized at once by the unique elevations of the elytra and tergites, as well as by the shape of the pronotum and the form of the antennae. I have some doubts that it is a true *Carpelimus* but can find no obvious distinguishing feature and know of no other genus to which it might be referred.

The type was found along the edge of a stream.

8. CARPELIMUS SMITHI (Bernhauer)

Trogophloeus smithi BERNHAUER, 1908, p. 229.—BERNHAUER and SCHUBERT, 1911, p. 104.

Trogophloeus (*Carpalimus*) *smithi* CAMERON, 1913b, p. 323 (as new species).—LENG and MUTCHLER, 1914, p. 403.—SCHEERPELTZ, 1933, p. 1082.

Trogophloeus (*Carpalimus*) *smithianus* SCHEERPELTZ, 1933, p. 1082 (as new name for *smithi* Cameron).

Trogophloeus croceipes BIERIG, 1935a, p. 9 (not Fauvel).

Description.—Black, pronotum and elytra feebly rufescent. *Head* with two feeble depressions between the antennal ridges; eyes at nearly half their length from base. *Pronotum* about one-fourth wider than long, anterior angles rounded; disk with a strong arcuate transverse basal depression and two rather indefinite longitudinal ones; punctures coarse and moderately dense; without distinct ground sculpture except in the basal groove. *Elytra* a little more coarsely punctate than pronotum and somewhat obscured by indefinite ground sculpture. Length, 2¼ to 3¼ mm.

Type locality.—"Grenada (leg. Smith), Bolivien, Argentinien (Buenos Aires, Resistencia)." Of *smithi* Cameron. Grenada, Mount Gay Estate, Leeward side.

Types.—Presumably in the collection of Dr. Max Bernhauer. Of *smithi* Cameron, in the British Museum, and one "cotype" in the United States National Museum (No. 50879).

Records.—The following are the records known to me:

Cuba: Aspiro (Bierig, in U.S.N.M., as *croceipes*), Guanabo (Bierig, in U.S.N.M., as *croceipes*), Hongolosongo, Oriente (Darlington, in M.C.Z.), Soledad (Darlington, in M.C.Z.).

Hispaniola: HAITI, Port-au-Prince (Darlington, in M.C.Z. and U.S.N.M.).

Grenada: (Bernhauer, 1908; Cameron, 1913; Scheerpeltz, 1933; British Museum; U.S.N.M.).

Trinidad: St. Augustine (Darlington in M.C.Z. and U.S.N.M.).

South America: BOLIVIA, ARGENTINA (Bernhauer, 1908).

Specimens examined.—I have examined 78 examples (including the type) in the British Museum, 5 in the United States National Museum, and 5 from the Museum of Comparative Zoology.

Remarks.—This species may be distinguished by its complete basal pronotal depression and the punctation of the pronotum and elytra.

Although it is impossible for me to be certain, it seems highly probable that the Bernhauer and the Cameron Grenada species are identical, being from the same lot. If the holotype be one of the South American specimens, then our species may be different and would be called *smithianus* Scheerpeltz.

Specimens of this species were sent by Sr. Bierig under the name *croceipes.* They are certainly not the *croceipes* of Fauvel, and I am unable to distinguish them from *smithi* of Cameron or the examples from Haiti and Trinidad.

I find no record of the habits of this species.

9. CARPELIMUS WEBERI, new species

Description.—Piceous, pronotum and base of elytra rufescent, abdomen castaneous. *Head* with two moderate depressions between the antennal ridges; eyes at about half their length from base. *Pronotum* one-third wider than long; anterior angles rounded; disk with a strong arcuate transverse basal depression, the two very short longitudinal depressions uniting with each other but separated from the basal one; punctures moderately fine and dense and somewhat obscured by indefinite ground sculpture. *Elytra* much more coarsely punctate than pronotum, and with traces of ground sculpture. Length, 2 mm.

Type locality.—Trinidad, base of Galeota Point.

Types.—*Holotype*, Museum of Comparative Zoology, and one paratype, United States National Museum No. 52482, collected by N. A. Weber, in September (type) and March 1935.

Records.—The following are the records known to me:

Trinidad: Galeota Point (Weber, in M.C.Z.), Maracas Falls (Weber, in U.S.N.M.).

Specimens examined.—I have seen only the two types.

Remarks.—This species is very similar to *smithi* except for the sculpture of the pronotum.

I have received no record of its habits.

10. CARPELIMUS HISPANIOLUS, new species

Description.—Piceous. *Head* with two moderate depressions between the antennal ridges; eyes separated from base by about one-third their length. *Pronotum* one-fourth wider than long; sides and angles not tuberculate; sides distinctly emarginate in posterior half; disk with a large arcuate transverse basal depression and vague traces of two short longitudinal ones; with obsolescent punctures, a little more distinct basally, but very shallow; without distinct ground sculpture. *Elytra* with very coarse punctures separated by one-half their diameter or less by fairly flat intervals; without distinct ground sculpture. Length, 3 to 3¼ mm.

Type locality.—Haiti, northeastern foothills of Morne La Hotte, elevation 3,000 to 4,000 feet.

Types.—Holotype and one paratype in Museum of Comparative Zoology, one paratype in the United States National Museum (No. 52483), collected by Dr. P. J. Darlington on October 12, 1934.

Records.—The following is the only record known to me:

Hispaniola: HAITI, Morne La Hotte (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the three types.

Remarks.—This species is readily distinguished from *impunctus* and *obsolescens* by the size of the elytral punctures. It is also distinct from *obsolescens* by its obsolete pronotal depressions, and from *impunctus* by the proportions of the pronotum and its size.

I have received no record of the habits of this species.

11. CARPELIMUS IMPUNCTUS, new species

Description.—Black. *Head* with two moderate depressions between the antennal ridges; eyes separated from base by about half their length. *Pronotum* one-fifth wider than long, sides and anterior angles not tuberculate; disk with a large arcuate transverse basal depression and two very feeble longitudinal ones united with it; without distinct punctures or sculpture but minutely and irregularly punctulate. *Elytra* moderately coarsely and rather densely punctate; without distinct ground sculpture. Length, 2¼ to 2¾ mm.

Type locality.—Jamaica.

Types.—Holotype and four paratypes, U.S.N.M. No. 52468, collected by H. G. Hubbard.

Records.—The following is the only record known to me:

Jamaica: (Hubbard, in U.S.N.M.).

Specimens examined.—I have seen only the five types.

Remarks.—This species can be distinguished from all other West Indian species of *Carpelimus* by its virtually impunctate pronotum and feeble longitudinal impressions.

I have no record of its habits.

12. CARPELIMUS OBSOLESCENS, new species

Description.—Black, pronotum and elytra more or less rufescent. *Head* with two very feeble depressions between the antennal ridges, the latter very small; eyes separated from base by less than half their length. *Pronotum* one-eighth wider than long; sides and angles not tuberculate; disk with a large transverse arcuate basal impression and two feeble longitudinal ones united with it and at middle with each other; with moderate punctures only slightly obscured by vague ground sculpture. *Elytra* with moderately coarse punctures somewhat obscured by the irregular ground sculpture. Length, 2½ to 3½ mm.

Type locality.—Hispaniola, Ennery, Haiti, near an elevation of 1,000 feet.

Types.—Holotype and two paratypes in the Museum of Comparative Zoology; three paratypes in the United States National Museum (No. 52484); all collected by Dr. P. J. Darlington on September 6–11, 1934.

Records.—The following are the records known to me:

Hispaniola: HAITI, Ennery (Darlington, in M.C.Z. and U.S.N.M.), Port-au-Prince (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the six types.

Remarks.—This species differs considerably from *impunctus* in the punctation of the pronotum and elytra as well as by its very much reduced antennal ridges.

I have no record of its habits.

13. CARPELIMUS BORINQUENSIS, new species

Description.—Piceous, pronotum and elytra more or less rufescent, abdomen castaneous. *Head* with two feeble depressions between the antennal ridges; eyes separated from base by about one-half their length. *Pronotum* one-fourth wider than long; sides and angles not tuberculate; sides behind middle distinctly emarginate; disk with a large arcuate transverse basal impression, sometimes partially interrupted at middle, and two short longitudinal depressions deeply united to form a transverse median groove; without distinct punctures (except traces at base) but with minute punctulae throughout; without ground sculpture. *Elytra* with moderately coarse punctures, but no distinct ground sculpture. Length, 2¼ to 2½ mm.

Type locality.—Puerto Rico, Maricao Forest, elevation 2,000 to 3,000 feet.

Types.—Holotype and five paratypes in the Museum of Comparative Zoology; four paratypes in the United States National Museum (No. 52485); collected by Dr. P. J. Darlington in May 1938.

Records.—The following are the records known to me:

Puerto Rico: Maricao (Darlington, in M.C.Z. and U.S.N.M.), El Yunque, Darlington, in M.C.Z. and U. S. N. M.).

Specimens examined.—I have seen only the 10 types.

Remarks.—This species is distinct from all others in this group by the deep median groove, which is as strong as the basal one.

I have received no record of its habits.

14. CARPELIMUS DANFORTHI, new species

Description.—Black. *Head* with two very feeble depressions between the antennal ridges; eyes not distinctly separated from base. *Pronotum* one-sixth wider than long, all sides and angles rounded; disk with feeble traces of two longitudinal depressions; with moderate punctures not very dense but almost completely obscured by dense and distinct ground sculpture. *Elytra* coarsely punctate, the intervals vaguely rugose; with rather irregular ground sculpture. Length, 2 to 2¾ mm.

Type locality.—Puerto Rico, south side of Guanica Lake.

Types.—Holotype and one paratype, U.S.N.M. No. 52469, collected by me on January 5, 1937.

Records.—The following are the records known to me:

Jamaica: Kingston (U.S.N.M.).
Puerto Rico: Guanica (Blackwelder station 355A), Ensenada (A.M.N.H.).

Specimens examined.—I have seen the two types, three other examples in the United States National Museum, and two specimens in the American Museum of Natural History.

Remarks.—This species may be distinguished among those with coarsely punctate elytra by the strong ground sculpture of the pronotum which obscures the punctures.

The paratype is quite pale in color but does not differ structurally from the type. It is apparently immature in regard to the color. The Jamaica examples have the pronotal sculpture somewhat less distinct but do not seem to differ otherwise.

The types were taken from under rubbish on the muddy bank of the lake; the Jamaican examples were found abundantly in greenhouses.

15. CARPELIMUS CUBENSIS (Bierig)

Trogophloeus cubensis BIERIG, 1935a, p. 15, 16, fig. 8.

Description.—Black. *Head* with two moderate depressions between the antennal ridges; eyes at about two-thirds their length from base. *Pronotum* one-fourth wider than long, angles rounded; disk with two feeble longitudinal depressions joining the basal foveae; without very distinct punctation but granularly sculptured. *Elytra* with moderate punctures very slightly obscured by traces of ground sculpture. Length, 1½ to 1¾ mm.

Type locality.—Cuba.

Types.—In collection of Alexander Bierig. One "cotype" in the United States National Museum (No. 52705).

Records.—The following are the records known to me:

Cuba: Rio Almendares (Bierig, 1935), Playa de Jaimanitas (Bierig, 1935), Valle del Yumuri (Bierig, 1935), Rangel (Bierig, 1935), Sierra Bonilla (Bierig, in U.S.N.M.), Sierra del Rosario (Bierig, in U.S.N.M.).
Jamaica: Spanish Town (Blackwelder station 377).

Specimens examined.—I have seen two examples in the United States National Museum and one collected by Chapin and Blackwelder in February 1937.

Remarks.—This species is most readily distinguished by its deep black color. The Jamaican example does not agree in every detail but presents no characters sufficient to separate it.

The Jamaican example was taken flying at dusk.

16. CARPELIMUS IMITATOR (Bierig)

Trogophloeus imitator Bierig, 1935a, p. 12, 13, 14, 15, fig. 6.

Description.—Black, pronotum sometimes rufescent, elytra piceocastaneous with apex narrowly paler. *Head* with two feeble impressions between the antennal ridges; eyes separated from base by nearly half their length. *Pronotum* over one-fourth wider than long, the angles rounded; disk with two rather feeble longitudinal impressions posteriorly; punctures not very fine but somewhat obscured by indistinct ground sculpture. *Elytra* with moderately large punctures more or less obscured by indefinite ground sculpture. Length, 1¼ to 1¾ mm.

Type locality.—Cuba, "Aspiro (al pie de la Sierra del Rosario)."

Types.—In collection of Alexander Bierig. Two "cotypes" in the United States National Museum (No. 52708).

Records.—The following are the records known to me:

Cuba: Aspiro (Bierig, 1935), Rio Almendares (Bierig, in U.S.N.M.), Cayajabos (Bierig, in U.S.N.M.), Cayamas (Schwarz, in U.S.N.M.).

Jamaica: Santa Cruz (Blackwelder station 421), Spanish Town (Blackwelder station 377), Black River (Blackwelder station 416), Trinityville (Blackwelder station 428), Gordon Town (Blackwelder station 368B), Kingston (Blackwelder station 385), Moneague (Blackwelder station 375).

Puerto Rico: Maricao (Blackwelder stations 47A, 47B), Mayagüez (Blackwelder station 50A), Jayuya (Oakley, in U.S.N.M.), Utuado (Busck, in U.S.N.M.), Guanica (Darlington, in M.C.Z.).

St. Croix: (Blackwelder stations 333, 341, 344).

Guadeloupe: Basse Terre (Blackwelder stations 75, 79B; A.M.N.H.).

Specimens examined.—I have seen 2 examples from the Bierig collection and 11 others in the United States National Museum, 17 in the American Museum of National History, 1 in the Museum of Comparative Zoology, and 53 collected by Chapin and Blackwelder during 1935–37.

Remarks.—This species is rather feebly set off by the pale elytral apex. The above description was taken from one of the "cotypes" in the United States National Museum.

My specimens were taken from under dung, rotten mangoes, rotten guavas, and fresh chips, from the muddy banks of ponds and streams, and flying at dusk.

17. CARPELIMUS VARICORNIS (Bernhauer)

Trogophloeus varicornis BERNHAUER, 1904a, p. 24.—BERNHAUER and SCHUBERT, 1911, p. 105.—LENG and MUTCHLER, 1914, p. 403.

Trogophloeus (Taenosoma) laetipennis CAMERON, 1923, p. 395.—SCHEERPELTZ, 1933, p. 1085.

Trogophloeus (s. str.) *laetipennis* Cameron, SCHEERPELTZ, 1933, p. 1085.

Description.—Piceous, pronotum rufopiceous, elytra testaceous. *Head* with two moderate depressions between the antennal ridges; eyes separated by about half their length from base. *Pronotum* one-fourth wider than long, the angles rounded; disk with two feeble longitudinal depressions; punctures moderate but obscured by rather indefinite ground sculpture. *Elytra* moderately coarsely punctate, without very distinct ground sculpture. Length, 1½ mm.

Type locality.—Grenada, Vendome Estate, Leeward side. Of *laetipennis*, Grenada, Mount Gay Estate, Leeward side.

Types.—Probably in the British Museum, although Bernhauer made no mention of them and I did not find them there. Of *laetipennis*, in the British Museum.

Records.—The following are the records known to me:

Cuba: Cauto El Cristo, Oriente (Darlington, in M.C.Z. and U.S.N.M.), Soledad (Darlington, in M.C.Z. and U.S.N.M.), Savana La Mar, Oriente (Darlington, in M.C.Z. and U.S.N.M.), Maisi, Oriente (Darlington, in M.C.Z.).

Hispaniola: HAITI, Port-au-Prince (Darlington, in M.C.Z.).

Grenada: (Bernhauer, 1904; Leng and Mutchler, 1914; Cameron, 1923, as *laetipennis*).

Trinidad: Galeota Point (Weber, in M.C.Z.), St. Augustine (Weber, in M.C.Z.), Nariva Swamp (Weber, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen four examples (including the type of *laetipennis*) in the British Museum. One of these was borrowed for further study. Also 21 examples from the Museum of Comparative Zoology.

Remarks.—This is one of the species that is very difficult to place in a key. The characters used above appear to be sufficient to set it apart. There seems to be little doubt that the types of *varicornis* and *laetipennis* came from the same material, although not from exactly the same locality. One of the other examples of *laetipennis* came from Vendome Estate where the type of *varicornis* was found. I find no record of the habits of this species.

18. CARPELIMUS ARIDUS (DuVal)

Trogophloeus aridus DUVAL, 1857, p. 43.—FAUVEL, 1863, p. 439.—SHARP, 1887, p. 698.—GUNDLACH, 1893, p. 300.—BERNHAUER, 1910, p. 356.—BERNHAUER and SCHUBERT, 1911, p. 97.—LENG and MUTCHLER, 1914, p. 403; 1917, p. 198.—WOLCOTT, 1924, p. 177; 1936, p. 198.—BIERIG, 1935a, p. 9.

Description.—Black, pronotum and elytra sometimes more or less rufescent. *Head* with two rather feeble depressions between the antennal ridges; eyes separated from base by not over one-sixth of their length. *Pronotum* almost one-half wider than long, sides and angles rounded; disk with two distinct longitudinal depressions uniting with the two halves of the transbasal depression; with moderately large punctures not or scarcely obscured by ground sculpture. *Elytra* more coarsely punctate than the head, the intervals vaguely rugose, without distinct ground sculpture. Length, 2 to 2½ mm.

Type locality.—Cuba.

Types.—The type should be in the Sharp collection in the British Museum, but I did not find it.

Records.—The following are the records known to me:

Cuba: (DuVal, 1857; Fauvel, 1863; Sharp, 1887; Gundlach, 1893; Bernhauer and Schubert, 1911; Leng and Mutchler, 1914; Bierig, 1935; Cameron collection), La Coronella (Bierig, in U.S.N.M.), Soledad (Darlington, in M.C.Z. and U.S.N.M.).

Jamaica: (Cameron collection), Kingston (Blackwelder station 379), Spanish Town (Blackwelder station 377), Balaclava (Blackwelder station 399A), Trinityville (Blackwelder station 428), May Pen (Blackwelder station 425B), Ocho Rios (Darlington, in M.C.Z.).

Hispaniola: HAITI (Cameron collection), Bayeux (Hoffman, in U.S.N.M.), Port-au-Prince (Darlington, in M.C.Z.), Ennery (Darlington, in M.C.Z. and U.S.N.M.); DOMINICAN REPUBLIC, Rio San Juan (Miller, in U.S.N.M.), Sanchez (A.M.N.H.; Darlington, in M.C.Z. and U.S.N.M.), Barahona (Darlington, in M.C.Z. and U.S.N.M.).

Puerto Rico: (Gundlach, 1893; Leng and Mutchler, 1914; Wolcott, 1924, 1936). Guanica (Blackwelder station 355A; Darlington, in M.C.Z. and U.S.N.M.).

St. Croix: (Blackwelder station 341).

Barbados: (British Museum; Blackwelder station 198B).

St. Vincent: (Blackwelder station 170; British Museum, as *memnonius*).

Grenada: (British Museum, as *memnonius*).

Trinidad: St. Augustine (Darlington, in M.C.Z.).

Specimens examined.—I have seen 45 examples in the British Museum, 8 in Dr. Cameron's collection, 14 from the Museum of Comparative Zoology, 4 in the United States National Museum, 1 in the American Museum of Natural History, and 43 collected by me during 1935–37.

Remarks.—Part of the specimens in the British Museum were placed under the name *Trogophloeus memnonius* Erichson. This species is otherwise known only from the Mediterranean area and appears to me to be distinct in details of punctation.

My specimens were taken from under stones and on mud banks along streams and ponds, from partly submerged debris in a stream, and flying at dusk.

19. CARPELIMUS AEOLUS, new species

Description.—Head black, pronotum rufopiceous, elytra light rufocastaneous, abdomen piceous. *Head* with two moderate depressions between the antennal ridges; eyes scarcely at all separated from base. *Pronotum* about one-fifth wider than long, the angles rounded; disk with two feeble longitudinal depressions posteriorly; with punctures rather fine and dense, not distinct but not definitely obscured by ground sculpture. *Elytra* with rather fine but irregular punctures; without distinct ground sculpture. Length, 1½ mm.

Type locality.—Jamaica, between Spanish Town and Kingston.

Types.—Holotype and two paratypes, U.S.N.M. No. 52450, collected by Chapin and Blackwelder on February 2, 1937.

Records.—The following are the records known to me:

Jamaica: Spanish Town (Blackwelder station 377), Santa Cruz (Blackwelder station 421), Kingston (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the three types and two specimens from the Museum of Comparative Zoology.

Remarks.—This species may be distinguished from *subtilior* by its normally stout form and prominent eyes.

The types were taken flying at dusk.

20. CARPELIMUS PHAIOS, new species

Description.—Head black, pronotum and elytra rufopiceous, abdomen piceous. *Head* with two rather feeble depressions between the antennal ridges; eyes separated from base by nearly two-thirds their length. *Pronotum* about one-fifth wider than long, sides and angles rounded; disk with two feeble longitudinal depressions united with basal foveae; punctures moderate, very distinct, with shining intervals. *Elytra* very coarsely punctate; with traces of ground sculpture. Length, 2 mm.

Type locality.—Jamaica, between Bath in St. Thomas and Lower White Horses by way of Sunning Hill, Trinityville, and Cedar Hill.

Types.—Holotype and one paratype, U.S.N.M. No. 52448, collected by Chapin and Blackwelder on February 28, 1937.

Records.—The following are the records known to me:

Cuba: Cayamas (Schwarz, in U.S.N.M.), Vinales (A.M.N.H.).
Jamaica: Trinityville (Blackwelder station 428), Moneague (Blackwelder station 435).

Specimens examined.—I have seen the two types and one other specimen in the United States National Museum, and two in the American Museum of Natural History.

Remarks.—This species may be distinguished from its neighbors by the proportions of the pronotum and the details of punctation as given in the key. The single example from Cuba is paler than the types but is otherwise the same.

Our specimens were taken flying at dusk and by sweeping grass in a meadow.

21. CARPELIMUS SCROBIGER (Cameron)

Trogophloeus (*Boopinus*) *scrobiger* CAMERON, 1923, p. 393.—SCHEERPELTZ, 1933, p. 1088.

Trogophloeus (s. str.) *scrobiger* Cameron, SCHEERPELTZ, 1933, p. 1088.

Description.—Black. *Head* with two moderate depressions between the antennal ridges; eyes scarcely separated from base. *Pronotum* nearly one-half wider than long, angles rounded; disk with two feeble longitudinal depressions joining the separated halves of the arcuate basal depression; with fine punctures separated by fairly smooth shining intervals. *Elytra* with punctures a little larger than on pronotum but rather angular, intervals with vague ground sculpture. Length, 1½ to 2 mm.

Type locality.—Grenada, St. Johns River, Leeward side.

Types.—In the British Museum.

Records.—The following are the records known to me:

Jamaica: Bath in St. Thomas (Blackwelder station 392B), Trinityville (Blackwelder station 428).

Puerto Rico: Aguadilla (Busck, in U.S.N.M.), Utuado (Busck, in U.S.N.M.).

Vieques Island: (Busck, in U.S.N.M.).

St. Vincent: (Blackwelder station 176A).

Grenada: (Cameron, 1923; Scheerpeltz, 1933; British Museum; Cameron collection; U.S.N.M.).

Specimens examined.—I have seen 15 examples in the British Museum, 4 in Dr. Cameron's collection, 4 in the United States National Museum, and 18 collected by me during 1935–37.

Remarks.—The description was drawn from a St. Vincent example. This is one of the smallest of our species having the punctures of the pronotum discrete and not obscured by ground sculpture.

My examples were taken from under stones along the edge of streams and flying at dusk.

22. CARPELIMUS PETOMUS, new species

Description.—Head black, pronotum and elytra piceorufous, abdomen black with apex rufescent. *Head* with two feeble depressions between the antennal ridges; eyes scarcely separated from base. *Pronotum* one-fifth wider than long, angles rounded; disk with two feeble rounded depressions along middle; with rather fine punctures not distinctly separate yet not obscured by ground sculpture. *Elytra* finely and irregularly punctate, and with indefinite ground sculpture. Length, 1½ to 2 mm.

Type locality.—St. Thomas, Charlotte Amalie.

Types.—Holotype and seven paratypes, U.S.N.M. No. 52470, collected by me on October 21, 1935. One paratype has been deposited in the British Museum and one in the collection of Dr. Cameron.

Records.—The following are the records known to me:

Jamaica: Milk River (Blackwelder station 415), Spanish Town (Blackwelder station 377).
Puerto Rico: Guanica (Blackwelder station 357A).
Vieques Island: (Leonard, in U.S.N.M.).
St. Thomas: (Blackwelder station 68).
Antigua: (Blackwelder station 205).

Specimens examined.—I have seen the 11 types and 8 other specimens in the United States National Museum.

Remarks.—This species is one of the group that differ in details of sculpture and in arrangement of colors. These are separated as shown in the key.

My specimens were taken from under seaweed on the beach or flying at dusk or to light.

23. CARPELIMUS FLAVIPES (Erichson)

Trogophloeus flavipes ERICHSON, 1840, p. 808.—DUVAL, 1857, p. 44.—FAUVEL, 1863, p. 441.—BERNHAUER and SCHUBERT, 1911, p. 99.—LENG and MUTCHLER, 1914, p. 403. (Not Motschulsky, 1861.)
Trogophloeus hiemalis BIERIG, 1935a, p. 13, 14, 15, fig. 3.
Trogophloeus flavibasis BIERIG, 1935a, p. 13, fig. 4.

Description.—Black, pronotum rufopiceous, elytra rufocastaneous. *Head* with two feeble depressions between the antennal ridges; eyes separated from base by less than one-fourth their length. *Pronotum* about one-fourth wider than long, anterior angles rounded; disk with two feeble short depressions not united with basal foveae: with rather fine punctures a little indistinct but without distinct ground sculpture. *Elytra* not very finely but rather irregularly punctate, the punctures angular and somewhat obscured by indefinite ground sculpture. Length, 1¼ to 2 mm.

Type locality.—"Americae meridionalis insulis St. Johannis et St. Thomae." Of *hiemalis*, Cuba; of *flavibasis*, Cuba, Sierra del Rosario, vicinity of Cayajabos.

Types.—Either in the Hope Museum, Oxford, or the Zoologische Museum, Berlin. Of *hiemalis* and *flavibasis*, in collection of Alexander Bierig (one "cotype" of each in the United States National Museum, Nos. 52701 and 52704).

Records.—The following are the records known to me:

Bahamas Islands: Nassau (Knab, in U.S.N.M.).
Cuba: (Fauvel, 1863; DuVal, 1857; Leng and Mutchler, 1914), Playa de Marianao (Bierig, 1935), Aspiro (Bierig, 1935; U.S.N.M.), Cayamas (Schwarz, in U.S.N.M.), Cayajabos (Bierig, 1935, as *flavibasis;* U.S.N.M.).
Jamaica: (Hubbard, in U.S.N.M.; Cameron collection), Santa Cruz (Blackwelder station 421), Spanish Town (Blackwelder station 377), Bath in St. Thomas (Blackwelder station 392H).

Hispaniola: HAITI (Cameron collection).
Puerto Rico: Mayagüez (Blackwelder station 50D), Guanica (Blackwelder station 355A).
St. Thomas: (Erichson, 1840; DuVal, 1857; Fauvel, 1863; Leng and Mutchler, 1914).
St. John: (Erichson, 1840; DuVal, 1857; Fauvel, 1863; Leng and Mutchler, 1914).
St. Croix: (Blackwelder station 344).
Guadeloupe: (A.M.N.H.).
St. Lucia: (Cameron collection).
Barbados: (Blackwelder station 200).
St. Vincent: (Blackwelder stations 166, 176A; British Museum).
Grenada: (H. H. Smith, in British Museum and U.S.N.M.).
Central America: MEXICO (Bernhauer and Schubert, 1911).

Specimens examined.—I have seen 670 examples in the British Museum, 14 in Dr. Cameron's collection, 17 in the United States National Museum (including "cotypes" of *hiemalis* and *flavibasis*), 2 in the American Museum of Natural History, and 14 collected by me during 1935–37.

Remarks.—This widespread species is somewhat variable in small details but seems to be distinguishable by the characters used in the key. I am not able to separate the two Cuban species described by Sr. Bierig.

My specimens were taken from under stones and trash, along streams and ponds, and flying at dusk.

24. CARPELIMUS SUBTILIOR (Cameron)

Trogophloeus (*Tacnosoma*) *subtilior* CAMERON, 1923, p. 396.—SCHEERPELTZ, 1933, p. 1088.
Trogophloeus (s. str.) *subtilior* Cameron, SCHEERPELTZ, 1933, p. 1088.

Description.—Head black or piceous, pronotum and elytra light rufocastaneous, abdomen somewhat picescent. *Head* with two feeble depressions between the antennal ridges, and with a feeble fovea on the vertex; eyes separated from base by about their length. *Pronotum* scarcely wider than long, the angles rounded; disk with two feeble longitudinal depressions uniting with the basal foveae; punctures not distinct, but with rather dense coarse sculpture. *Elytra* finely punctate; without distinct ground sculpture. Length, 1¼ to 1¾ mm.

Type locality.—Grenada, Balthazar.

Types.—Unique type in the British Museum.

Records.—The following are the records known to me:

Jamaica: Spanish Town (Blackwelder station 377), Fern Gully (Blackwelder station 374).
Grenada: (Cameron, 1923).

Specimens examined.—I have seen the type in the British Museum and three examples collected by Chapin and Blackwelder in 1937.

Remarks.—This species may be recognized by its very slender form and not prominent eyes. The above description was drawn from a Fern Gully example.

My specimens were taken flying at dusk.

25. CARPELIMUS PROLIXUS (Bierig)

Trogophloeus prolixus BIERIG, 1935a, pp. 12, 13, fig. 2.

Description.—Black, elytra rufocastaneous. *Head* with two feeble depressions between the antennal ridges; eyes scarcely separated from base. *Pronotum* about one-fourth wider than long, the angles rounded; disk with two rather feeble longitudinal depressions uniting with the basal foveae; punctures rather fine but obscured by indefinite ground sculpture. *Elytra* with punctures moderately fine and somewhat angular; with indefinite ground sculpture. Length, 1¾ mm.

Type locality.—Cuba.

Types.—In collection of Alexander Bierig. One "cotype" in the United States National Museum (No. 52707).

Records.—The following are the records known to me:

Cuba: Rio Almendares (Bierig, 1935; Bierig, in U.S.N.M.), Laguna La Canoa (Bierig, 1935), Playa de Marianao (Bierig, 1935), Aspiro (Bierig, 1935).

Specimens examined.—I have seen only the "cotype" in the United States National museum.

Remarks.—This species can be distinguished from those near it in the key by its slender form.

I find no record of its habits.

26. CARPELIMUS HAPLOMUS, new species

Trogophloeus hatuey BIERIG, MS.

Description.—Black, the elytra very slightly rufescent. *Head* with two very feeble depressions between the antennal ridges; base not strongly marked but eyes not much separated from it. *Pronotum* over one-third wider than long, angles rounded; disk without trace of longitudinal depressions but with feeble basal foveae; sculpture very fine and very dense, surface entirely opaque. *Elytra* with rather coarse punctures separated by irregular intervals; with very feeble and indefinite ground sculpture. Length, 1½ mm.

Type locality.—St. Croix, Frederiksted.

Types.—Holotype, U. S. N. M. No. 52451, collected by me during November 1936.

Records.—The following are the records known to me:

Cuba: Rio Almendares (Bierig, in U.S.N.M., as *hatuey*).
St. Croix: (Blackwelder station 338).

Specimens examined.—I have seen only the type and one example from Cuba labeled *T. hatuey* Bierig in the United States National Museum.

Remarks.—This species is rather distinct according to the characters employed in the key. The Cuban example, which is a "cotype" of *hatuey*, is identical with the type except for the presence of an indistinct testaceous spot on *one* elytron.

The type was caught flying to light at night.

27. CARPELIMUS TUNAPUNAE, new species

Description.—Black, the pronotum rufescent, the elytra piceorufous with the apical third indefinitely testaceous. *Head* with scarcely a trace of depressions between the antennal ridges; eyes separated from base by one-fourth their length, constriction abrupt but feeble. *Pronotum* one-fourth wider than long, the angles rounded; disk without trace of longitudinal depressions or basal foveae; sculpture very fine and very dense, granular, surface opaque. *Elytra* with moderate punctures obscured by irregular intervals and traces of ground sculpture which is more evident basally. Length, 1⅓ to 1⅔ mm.

Type locality.—Trinidad, foothills north of Tunapuna.

Types.—Holotype and two paratypes in the Museum of Comparative Zoology; two paratypes in the United States National Museum (No. 52482); collected on May 25, 1935, by Dr. N. A. Weber. One paratype collected 12 miles north of Arima.

Records.—The following are the records known to me:

Trinidad: Tunapuna (Weber, in M.C.Z. and U.S.N.M.), Arima (Weber, in M.C.Z.).

Specimens examined.—I have seen only the five types.

Remarks.—This species is similar to *haplomus* in most characters. It differs in the shape of the head behind the eyes and in the coloration.

I have received no record of its habits.

28. CARPELIMUS DISCIPENNIS (Bierig)

Trogophloeus discipennis Bierig, 1935a, p. 16, fig. 7.

Description.—Black, elytra striped with testaceous from humerus to apex and along apical margin. *Head* with two very feeble depressions between the antennal ridges; separated from base by about their length or a little more. *Pronotum* one-fourth wider than long, angles rounded; disk without distinct depressions; very densely granulosely sculptured and opaque. *Elytra* with punctures scarcely evident because of the irregularity of the intervals; with some ground sculpture especially near base. Length, 1½ to 1¾ mm.

Type locality.—Cuba.

Types.—In the collection of Alexander Bierig. One "cotype" in the United States National Museum (No. 52702).

Records.—The following are the records known to me:

Cuba: Rio Almendares (Bierig, 1935; U.S.N.M.), Playa de Marianao (Bierig, 1935), Cayajabos (Bierig, 1935).

Jamaica: Fern Gully (Blackwelder station 374), Trinityville (Blackwelder station 428), Moneague (Blackwelder stations 375, 435), Santa Cruz (Blackwelder station 421), Milk River (Blackwelder station 415), Gordon Town (Blackwelder station 384), Ocho Rios (Blackwelder station 373).

Specimens examined.—I have seen the one "cotype" and 41 examples collected by Chapin and Blackwelder in February 1937.

Remarks.—This is a species definitely distinguished by its dense sculpture and elytral coloring. I find no difference between the Jamaican and the Cuban examples.

Our specimens were taken flying at dusk or by sweeping in a grassy meadow.

29. CARPELIMUS CHAPINI, new species

Description.—Black, pronotum and elytra more or less rufescent. *Head* with two very feeble depressions between the antennal ridges; eyes scarcely separated from the feebly defined base. *Pronotum* one-fourth wider than long, angles rounded; disk without trace of longitudinal depressions; without distinct punctures but densely and granularly sculptured. *Elytra* with moderately coarse punctures, the intervals with vague ground sculpture. Length, 1¼ to 1½ mm.

Type locality.—Jamaica, between Spanish Town and Kingston.

Types.—Holotype and five paratypes, U.S.N.M. No. 52429, collected by Chapin and Blackwelder on February 2, 1937. One paratype has been deposited in the British Museum.

Records.—The following is the only record known to me:

Jamaica: Spanish Town (Blackwelder station 377).

Specimens examined.—I have seen only the seven types.

Remarks.—This species appears to be distinguishable by details of sculpture. It is closest to *conformis.*

The types were taken flying at dusk.

30. CARPELIMUS RULOMUS, new species

Description.—Piceous. *Head* with two feeble impressions between the antennal ridges; eyes scarcely separated from feebly defined base. *Pronotum* nearly one-fourth wider than long; angles rounded; disk without trace of longitudinal depressions, but midline vaguely elevated at base; with dense and fine punctures appearing very much like ground sculpture; surface shining. *Elytra* with very fine but irregular punctures; without distinct ground sculpture. Length, 2 mm.

Type locality.—Dominican Republic, Barahona.

Types.—Holotype, Museum of Comparative Zoology, collected by Dr. P. J. Darlington in September 1938.

Records.—The following is the only record known to me:

Hispaniola: DOMINICAN REPUBLIC, Barahona (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the holotype.

Remarks.—This species differs from *chapini* principally in the very different punctation of the elytra.

I have no record of its habits.

31. CARPELIMUS CONFORMIS, new species

Trogophloeus conformis BIERIG, MS.

Description.—Black, the elytra feebly rufescent. *Head* with two feeble depressions between the antennal ridges; eyes separated from base by less than one-third their length. *Pronotum* about one-fifth wider than long, angles rounded; disk without trace of longitudinal depressions; with a vague trace of smooth midline; punctures distinct but not dense, intervals densely but not coarsely sculptured. *Elytra* with rather coarse punctures, the intervals with very feeble ground sculpture. Length, 1½ mm.

Type locality.—Cuba, El Cano, Habana Province.

Types.—Holotype in the United States National Museum (No. 52706), collected in April 1934 by Sr. Bierig.

Records.—The following is the only record known to me:

Cuba: El Cano (Bierig, in U.S.N.M.).

Specimens examined.—I have seen only the holotype in the United States National Museum.

Remarks.—This species may be distinguished by the distinct pronotal punctures among the ground sculpture.

I find no record of its habits.

32. CARPELIMUS AEQUALIS (DuVal)

Trogophloeus aequalis DUVAL, 1857, p. 44.—FAUVEL, 1863, p. 441.—BERNHAUER and SCHUBERT, 1911, p. 97.—LENG and MUTCHLER, 1914, p. 403.—WOLCOTT, 1924, p. 77; 1936, p. 196.—BIERIG, 1935a, pp. 9, 17. (Not Gundlach, 1893.)

Trogophloeus (*Taenosoma*) *funestus* CAMERON, 1923, p. 393.—SCHEERPELTZ, 1933, p. 1086.

Trogophloeus (s. str.) *funestus* Cameron, SCHEERPELTZ, 1933, p. 1086.

Trogophloeus (*Troginus*) *amplicollis* BIERIG, 1935a, p. 17, fig. 9.

Description.—Black, pronotum and elytra feebly rufescent. *Head* with two feeble depressions between the antennal ridges; eyes not distinctly separated from base. *Pronotum* about one-fifth wider than long, the angles narrowly rounded; disk without trace of longitudinal impressions but with a narrow smooth midline; with moderate punctures rather dense and obscured by indefinite ground sculpture. *Elytra* with moderately coarse punctures separated by irregular intervals which are vaguely sculptured. Length, 2 to 2½ mm.

Type locality.—Cuba. Of *amplicollis*, Cuba, Playa de Marianao; of *funestus*, Jamaica.

Types.—Presumably in the collection of Blanche Rancin, Caën, France. Of *amplicollis*, in collection of Alexander Bierig; of *funestus*, in collection of Dr. Cameron. One "cotype" of *amplicollis* is in the United States National Museum (No. 52700).

Records.—The following are the records known to me:

Bermuda: (Weber, in M.C.Z. and U.S.N.M.).

Bahamas Islands: Andros Islands, Mangrove Cay (Mann, in A.M.N.H.).

Cuba: (DuVal, 1857; Fauvel, 1863; Leng and Mutchler, 1914), Playa de Marianao (Bierig, 1935, and in U.S.N.M., as *amplicollis*).

Jamaica: (Cameron, 1923, as *funestus*), Santa Cruz (Blackwelder station 421), Spanish Town (Blackwelder station 377).

Specimens examined.—I have seen 7 examples (including the type of *funestus*) in Dr. Cameron's collection, 2 examples (including a "cotype" of *amplicollis*) in the United States National Museum, 1 in the American Museum of National History, 2 from the Museum of Comparative Zoology, and 11 collected by Chapin and Blackwelder in February 1937.

Remarks.—This is a distinct species, which may be recognized by the smooth midline of the pronotum. It is a rather robust species.

Our examples were taken flying at dusk.

33. CARPELIMUS DISSONUS (Bierig)

Trogophloeus dissonus BIERIG, 1935a, pp. 11, 12, fig. 5.

Description.—Black. *Head* with two moderate depressions between the antennal ridges; eyes scarcely separated from base. *Pronotum* about one-fifth wider than long, angles rounded; disk without longitudinal depressions but with basal foveae; not distinctly punctate with rather indefinite sculpture leaving surface shining but not smooth. *Elytra* with punctures obsolescent, giving an appearance of feeble sculpture. Length, 2¼ mm.

Type locality.—Cuba.

Types.—In collection of Alexander Bierig. One "cotype" in United States National Museum (No. 52703).

Records.—The following are the records known to me:

Cuba: Habana (Bierig, 1935), Batabano (Bierig, 1935), Playa de Marianao (Bierig, in U.S.N.M.).

Specimens examined.—I have seen only the one "cotype" in the United States National Museum.

Remarks.—This species may be distinguished from those close to it by its obsolescent punctation, especially that of the elytra.

I find no record of its habits.

34. CARPELIMUS TESTACEIPENNIS (Cameron)

Trogophloeus (*Taenosoma*) *testaceipennis* CAMERON, 1923, p. 395.—SCHEERPELTZ, 1933, p. 1089.

Trogophloeus (s. str.) *testaceipennis* Cameron, SCHEERPELTZ, 1933, 1089.

Original description.—"Black, greasy-lustrous, the elytra rufotestaceous, the base and scutellar region narrowly infuscate. Thorax with discal impressions ill-defined. Abdomen black, shining. Antennae with the first three joints brownish testaceous. Legs testaceous.

"Head densely coriaceous as in *T. sordidus*, mihi; the eyes large and temples short. Antennae with the third joint distinctly shorter than the second, the fourth small, scarcely longer than broad, the fifth larger, a little longer than broad, the sixth to the tenth transverse, gradually increasing in breadth, the penultimate only slightly transverse. Thorax rather strongly transverse, the sides gently rounded in front and pretty strongly contracted towards the base; disk with four obsolete impressions; sculpture dense and coriaceous, without distinct puncturation. Elytra a little longer and broader than the thorax, slightly transverse, closely and by no means finely punctured, shining. Abdomen black, shining, very finely and closely punctured in front, more sparingly on the last three segments, pubescence fine, not sericeous, moderately close. Length, 2 mm."

Type locality.—Haiti.

Types.—Unique type in collection of Dr. Cameron.

Records.—The following is the only record known to me:

Hispaniola: HAITI (Cameron, 1923; Cameron collection).

Specimens examined.—I have seen only the unique type, which I examined very briefly in Dr. Cameron's collection.

Remarks.—"This species is of almost identical build with *T. nigrellus* Shp., but differs in the sculpture and colour" (from original description).

I find no record of its habits.

35. CARPELIMUS SORDIDUS (Cameron)

Trogophloeus (*Taenosoma*) *sordidus* CAMERON, 1923, p. 394.—SCHEERPELTZ, 1933, p. 1088.

Trogophloeus (s. str.) *sordidus* Cameron, SCHEERPELTZ, 1933, p. 1088.

Original description.—"Black, moderately shining; the elytra dark brown. Head densely punctured; thorax with the impression on the disk very obsolete. Antennae with the first two joints brownish testaceous. Legs testaceous.

"Head without impression on the vertex, closely and densely sculptured, appearing to be coriaceous rather than punctured; eyes large, temples short. Antennae with the third point distinctly shorter than the second, the fourth scarcely longer than broad, the fifth as long as broad, larger than the fourth and sixth, sixth to the tenth transverse, gradually increasing in breadth, the penultimate about half as broad again as long. Thorax transverse, widest about the middle, the sides in front gently rounded and narrowed, rather strongly contracted in a nearly straight line behind; disk with four very obsolete impressions; densely coriaceous and with moderate close but obsolete puncturation. Elytra nearly half as long again as, and distinctly broader than the thorax, about as long as broad; rather coarsely and pretty closely punctured, finely and sparingly pubescent. Abdomen black, shining, very finely and moderately closely punctured and pubescent, rather more sparingly on the last two or three segments; finely coriaceous. Length. 1.75 mm."

Type locality.—Grand Cayman, Cayman Islands.

Types.—Unique type in collection of Dr. Cameron.

Records.—The following is the only record known to me:

Cayman Islands: Grand Cayman (Cameron, 1923; Cameron collection).

Specimens examined.—I have seen no examples of this species.

Remarks.—"Closely allied to *T. misellus*, Shp., but the thorax is more transverse and more strongly contracted behind, the sculpture more coriaceous, the puncturation appearing obsolete, the elytra rather more coarsely punctured, the antennae longer, the penultimate joints less transverse" (from original description).

I find no record of its habits.

36. CARPELIMUS DEMMELI (Bierig)

Trogophloeus demmeli Bierig, 1935a, p. 16.

Original description.—"Appears undoubtedly most closely related to the previous species (*discipennis*). However, it differs in the concolorous brownish-black eltyra, the obscuro-ferrugineous legs with the lighter knees and pallid tarsi. The sides of the elytra are more parallel; on the disk of the pronotum, in certain lights, one can see vestiges of the prebasal fossae; and the apical antennal enlargement appears more gradual. For the rest, one does not find differences of sufficient clarity to describe, they being of the same size" (translated).

Type locality.—Cuba.

Types.—In collection of Alexander Bierig.

Records.—The following are the records known to me:

Cuba: Habana (Bierig, 1935), Caimito del Guayabal (Bierig, 1935).

Specimens examined.—I have seen no examples of this species.

Remarks.—"In proof of my gratitude I dedicate this rarity to my estimable friend and colleague, the painter Albert Demmel, who gave it to me, having himself caught it at night on the tablecloth. The second example was found in the mud of a pond" (translated from original description).

This species appears to me to be a synonym of *discipennis*, but in the absence of specimens I retain it as a species not known to me.

37. CARPELIMUS FULVIPENNIS (Fauvel)

Trogophloeus fulvipennis Fauvel, 1863, p. 440.—Sharp, 1887, p. 699.—Hamilton, 1889, p. 118.—Cockerell, 1893, p. 326.—Bernhauer and Schubert, 1911, p. 98 (as variety of *corticinus* Gravenhorst).—Leng and Mutchler, 1914, p. 403 (as variety).—Gowdey, 1926, p. 11.—Scheerpeltz, 1933, p. 1083 (as aberration of *corticinus* Gravenhorst).—Bierig, 1935, p. 15.

Original description.—"Not very elongate, broad, subdepressed, black, base of antennae and feet testaceous; pronotum piceous, disk with four longitudinal impressions, sides rotund; elytra fulvorubrous, apex scarcely dilute, base somewhat infuscate, shining, one-third longer than wide; tip of abdomen concolorous. Length, 1⅔ mm.

"Of the form of *Tr. pusillus* Er., less elongate, wider; facies and coloration of the preceding (*T. rubripennis* Fauvel), to which it is probably closely related, but differs in reality in the following points: the size is smaller by half, the body is much more thick-set, wider, not linear, more brilliant, the palpi are testaceous, the antennae are paler, with the two basal segments testaceous. The pronotum is of the size of the head, a little elongated, scarcely one-fourth wider than long; the sides are regularly arcuate, not angulate, with the greatest width at about the center; upon the disk, with four small fossulae united to form a longitudinal impression. The elytra are paler especially at the apex, a little longer. The abdomen is a little broader, unicolorous, the outer margin of the penultimate segment and all of the last appear a little less pale under a certain light. The punctation is finer and denser on the head, pronotum, and abdomen, stronger and more visible on the elytra. The feet are pale testaceous." (Translated.)

Type locality.—Cuba.

Types.—Presumably in the collection of Blanche Rancin, Caën, France.

Records.—The following are the only records known to me:

Cuba: (Fauvel, 1863; Sharp, 1887; Cockerell, 1893; Leng and Mutchler, 1914).
Jamaica: (Cockerell, 1893; Gowdey, 1926).

Specimens examined.—I have seen no examples of this species.

Remarks.—It appears to me unlikely that this species is a variety of *T. corticinus* (Gravenhorst), but I am unable to add to the information outlined above.

I find no record of its habits.

VI. Genus TORRENTOMUS Bierig

Torrentomus Bierig, 1934c, p. 213.

Genotype.—*T. torrei* Bierig (original designation and monobasic).

Diagnosis.—Parallel and feebly convex; body with rather dense sculpture; without ocelli: labrum transverse, arcuate; head very strongly constricted behind; pronotum not transversely sulcate; inner apical angles of elytra not broadly rounded; tibiae pubescent.

Remarks.—The above characters were taken from Sr. Bierig's description. In addition to these the new species here described shows the following features: Antennae 11-segmented, filiform; gular sutures united in anterior half; fourth segment of maxillary palpus subulate; anterior coxal cavities confluent and open behind; front coxae conical, prominent; posterior coxae contiguous, transverse; sternite of first abdominal segment absent, of second complete; tarsi 3-segmented.

This genus is very similar to both *Oxytelus* and *Carpelimus*, although it is more likely to be confused with the former. I have seen examples only of the new species *tenebrosus*.

KEY TO WEST INDIAN SPECIES OF TORRENTOMUS

1. Pronotum widest at middle -- 1. torrei
   Pronotum widest near anterior angles ---------------------------- 2. tenebrosus

1. TORRENTOMUS TORREI Bierig

Torrentomus torrei Bierig, 1934e, p. 214, pl. 11, figs. 1, 3.

Description.—Ferrugineous, pronotum testaceous, elytra brownish posteriorly, apex of abdominal segments testaceous. *Head* slightly wider behind eyes, angles rotund; supra-antennal prominences moderate; sculpture densely granulose and regular; antennae scarcely thickened externally, second segment articulated with diagonally truncate end of first, labrum nearly semicircular. *Pronotum* one-half wider than long, as wide as head, sides and base arcuate; widest at middle where sides are feebly angled; sculpture densely granulose but less fine than on head and more coriaceous. *Elytra* scarcely wider than pronotum. *Abdomen* with very fine and scarcely perceptible sculpture. Length, 1⅓ to 1½ mm. (From Bierig.)

Type locality.—Cuba, Sierra del Grillo, province of Habana.

Types.—One example in collection of Alexander Bierig.

Records.—The following is the only record known to me:

Cuba: Sierra del Grillo (Bierig, 1934).

Specimens examined.—I have seen no examples of this species.

Remarks.—This species is known to me only from the original description.

The type was taken by sifting fallen leaves.

2. TORRENTOMUS TENEBROSUS, new species

Description.—Castaneous. *Head* slightly wider behind eyes, angles rotund; constricted part completely set off from rest by a circular sulcus around the neck; clypeal area quadrate, set off by a feebly impressed black angulate line; supraantennal prominences rather feeble; with very fine and very dense scaly sculpture throughout; antennae not at all thickened externally, second segment articulated with diagonally truncate end of first segment; labrum nearly semicircular but almost emarginate in front; maxillary palpus subulate, third segment large, fourth acicular; gular sutures converging on constricted part, united and broadly Y-shaped in front. *Pronotum* one-third wider than long, one-twelfth wider than head; sides and base arcuate, hind angles scarcely evident, widest at front; with irregular punctate depressions at posterior third of sides, and two large widely separated foveae near the base of disk; with very dense fine scaly sculpture. *Elytra* one-fourth wider than pronotum, one-ninth wider than long; sides nearly straight, apical angles scarcely rounded; with dense and fine scaly sculpture. *Abdomen* feebly submuricately sculptured. Length, 2½ mm.

Type locality.—Jamaica, vicinity of Trinityville, parish of St. Thomas.

Types.—Holotype and two paratypes in the United States National Museum (No. 52471), collected on February 28, 1937, by Chapin and Blackwelder (one paratype from Troy, parish of Trelawney, February 16, 1937).

Records.—The following are the records known to me:

Jamaica: Trinityville (Blackwelder station 428), Troy (Blackwelder station 409).

Specimens examined.—I have seen only the three types.

Remarks.—This species is doubtfully referred to *Torrentomus*, since that genus is not otherwise represented before me.

These specimens were caught flying at dusk.

VII. Genus APOCELLUS Erichson

Apocellus Erichson, 1840, p. 812.
Ocaleomorpha Fleischer, 1921, p. 114.

Genotype.—*Lathrobium sphaericollis* Say=*Apocellus sphaericollis* (Say) (designated by Duponchel, 1841).

Diagnosis.—Body glabrous, robust; integuments smooth; no ocelli; but with distinct pits of dorsal arm of tentorium; gular sutures united anteriorly; antennae 11-segmented; labrum quadrate; palpi subulate; anterior coxal cavities confluent, entirely open behind; anterior coxae prominent; posterior coxae contiguous, not expanded laterally under the femora; abdomen strongly margined, first sternite not present; sternite of second segment normal, not carinate; in male, seventh sternite more or less modified; posterior trochanters small; tibiae without rows of spines; tarsi 3-segmented; posterior ones larger than half of the tibia.

Remarks.—This is a genus readily distinguished by its facies as well as by structural characters.

I have seen 33 examples of this genus from the West Indies.

KEY TO WEST INDIAN SPECIES OF APOCELLUS

1. Pronotum and elytra longitudinally strigulose.................. 2. planus
Pronotum and elytra not strigulose......................... 1. ustulatus

1. APOCELLUS USTULATUS Erichson

Apocellus ustulatus Erichson, 1840, p. 813.—Lacordaire, 1854, p. 120.—Kraatz, 1858a, p. 807.—Bernhauer and Schubert, 1911, p. 108.—Leng and Mutchler, 1914, p. 404.

Description.—Flavotestaceous to rufotestaceous, elytra piceotestaceous with apex nigropiceous, apex of abdomen nigropiceous. *Head* one-eighth wider than pronotum, suborbicular, smooth, feebly impressed longitudinally on each side in front; supraantennal tubercles large and prominent; antennae longer than head and pronotum, incrassate; labrum rather large, twice as wide as long, rather deeply emarginate, with membranous lobes at anterior angles; gular sutures united from near constriction, Y-shaped anteriorly; third segment of maxillary palpi large, fourth acicular. *Pronotum* small, one-fifth wider than long; apex one-third wider than base, half as wide as elytra; convex, smooth. *Elytra* two-fifths longer than pronotum; smooth, shining. *Abdomen* smooth. *Male*, posterior margin of seventh sternite interrupted by an oval membranous cushionlike area; eighth sternite broadly concave, rather deeply triangularly emarginate posteriorly. Length, 2 to 2⅔ mm.

Type locality.—St. John.

Types.—Probably either in the Hope Museum, Oxford, or the Zoologische Museum, Berlin.

Records.—The following are the records known to me:

St. John: (Erichson, 1840; Lacordaire, 1854).
St. Croix: (Blackwelder stations 331, 344).

Montserrat: (Blackwelder station 269).
Guadeloupe: Basse Terre (Blackwelder station 75; A.M.N.H.).
Dominica: (Blackwelder station 242).
Grenada: (British Museum).

Specimens examined.—I have examined 2 examples in the British Museum, 3 in the American Museum of Natural History, and 21 collected by me in 1935–37.

Remarks.—The specimens in the British Museum were placed under *A. gracilis* Sharp from Central America. I was unable in a hurried examination to separate these or my specimens from the type of *gracilis*. However, *A. ustulatus* was described much earlier from St. John (Virgin Islands of the United States), and I cannot separate it from the specimens under consideration. I therefore conclude that the West Indian examples represent the *ustulatus* of Erichson and that the *gracilis* Sharp should not be in our lists unless it is a synonym of *ustulatus*, which I am unable to prove.

I have collected this species from under cow dung, from under seaweed on the beach, and flying at dusk.

2. APOCELLUS PLANUS Sharp

Apocellus planus Sharp, 1876, p. 401; 1877, p. 147.—Bernhauer and Schubert, 1911, p. 107.—Scheerpeltz, 1933, p. 1091.

Description.—Testaceous, head pronotum, elytra, and tip of abdomen in part infuscate. *Head* scarcely wider than pronotum, oval, very feebly impressed at sides; supraantennal prominences large and abrupt; impunctate but densely confusedly strigulose; antennae slender, as long as head, pronotum, and elytra together; labrum large, twice as wide as long, deeply emarginate; gular sutures united from near constriction, Y-shaped anteriorly; third segment of maxillary palpi large, fourth acicular. *Pronotum* about one-half as wide as elytra, scarcely wider than long, apex one-fifth wider than base; very densely and rather coarsely longitudinally strigulose. *Elytra* seven-ninths wider than long, nearly one-half longer than pronotum; with dense strigulae as on pronotum. *Abdomen* smooth. *Male*, seventh sternite almost completely divided by a large hemispherical cavity in the thickened posterior margin, cavity one-third as wide as segment; eighth sternite broadly semicircularly emarginate. Length, 2½ mm.

Type locality.—Brazil, Ega, Amazons.

Types.—In the Sharp collection in the British Museum.

Records.—The following are the records known to me:

Trinidad: St. Augustine (C. L. Withycombe, in British Museum).
South America: Brazil (Sharp, 1876, 1877), Argentina (Scheerpeltz, 1933).

Specimens examined.—I have examined seven specimens of this species in the British Museum. Four are from Trinidad. One of these was borrowed for further study.

Remarks.—This species is easily distinguished by the strigulose surface. I find no record of its capture since the original description and no indication of its habits.

VIII. Genus OXYTELUS Gravenhorst

Oxytelus Gravenhorst, 1802, p. 101.
Caccoporus Thomson, 1861, p. 127.
Styloxys des Gozis, 1886, p. 15.
Styloxis Eichelbaum, 1909, p. 119.
Oyxtelus Bernhauer and Schubert, 1911, p. 109.
Subgenus *Epomotylus* Thomson, 1861, p. 128.
Subgenus *Tanycraerus* Thomson, 1861, p. 129.
Subgenus *Anotylus* Thomson, 1861, p. 130.
Anotyhus Bernhauer, 1938, p. 22.
Subgenus *Emopotylus* Bernhauer, 1910, p. 359.

Genotype.—*Staphylinus piceus* Fabricius = *Oxytelus piceus* (Fabricius) (indicated by Duméril, 1806; designated by Latreille, 1810). (The designation of "*O. depressum* Grav. (= *tetracarinatus* Block)" by des Gozis in 1886 cannot stand.) Of *Anotylus*, *Oxytelus nitidulus* Gravenhorst (designated here), of *Caccoporus*, *Staphylinus piceus* Linnaeus = *Oxytelus piceus* (Linnaeus) (monobasic); of *Epomotylus*, *Oxytelus sculptus* Gravenhorst (monobasic); of *Tanycraerus*, *Oxytelus luteipennis* Erichson (monobasic); of *Emopotylus*, *Oxytelus cuernavacanus* Bernhauer (monobasic).

Diagnosis.—Body moderately depressed; without ocelli; antennae 11-segmented, more or less thickened apically; labrum transverse, emarginate; gular sutures united in anterior two-thirds; fourth segment of maxillary palpi more or less subulate; pronotum longitudinally sulcate; anterior coxal cavities confluent, entirely open behind; front coxae conical, prominent; middle coxal cavities separated by union of mesosternal and metasternal processes; elytra not dehiscent; posterior coxae contiguous, "transverse," not much expanded under the femora; abdomen margined; sternum of first segment absent, second complete, not carinate; posterior trochanters small; front tibiae with a single row of spines; tarsi 3-segmented.

Remarks.—This large genus shows a considerable variation in many characters. Exceptions can be found to many of those in the above diagnosis, but the members of the genus are readily distinguishable at a glance by their peculiar facies.

I have examined over 1,900 mounted specimens of this genus but have not had time to sort the rest of my West Indian series, which amount to over 10,000 additional examples.

KEY TO WEST INDIAN SPECIES OF OXYTELUS

1. Head, pronotum, and elytra finely sculptured and opaque[5]------ 6. **scorpio**
   Head, pronotum, and elytra not both finely sculptured and opaque-------- 2
2. Elytra muricately sculptured-- 3
   Elytra not muricately sculptured-------------------------------------- 4
3. Pronotum with three deep and regular longitudinal channels-- 3. **dentifrons**
   Pronotum without deep channels------------------------------ 7. **glareosus**
4. Elytra longitudinally channeled-- 5
   Elytra not longitudinally channeled------------------------------------ 6
5. Pronotum at most finely and very sparsely punctate-------------------- 7
   Pronotum strongly punctate, more densely at sides---------------------- 8
6. Elytra with dense ground sculpture in part----------------- 1. **insignitus**
   Elytra without ground sculpture---------------------------------- 8. **chapini**
7. Pronotum with three or five longitudinal grooves--------------- 2. **pluvius**
   Pronotum with only one longitudinal groove---------------- 9. **jamaicensis**
8. Lateral depressions of pronotum with ground sculpture-------- 5. **eremus**
   Lateral depressions without ground sculpture-------------------- 4. **incisus**

1. OXYTELUS INSIGNITUS Gravenhorst

Oxytelus insignitus Gravenhorst, 1806, p. 188.
Oxytelus americanus Mannerheim, 1830, p. 48.
Oxytelus pumilio Boheman, 1858, p. 34.
Oxytelus (*Anotylus*) *insignitus* Gravenhorst, Bernhauer and Schubert, 1911, p. 114.

Description.—Head piceous, pronotum and abdomen castaneous, elytra fuscotestaceous. *Head* with punctures very fine and obscured by sculpture except behind the eyes; with dense scaly sculpture; antennal segments transverse from the fifth; labrum twice as wide as long, broadly emarginate; four palpi subulate, fourth segment not much more slender than the third. *Pronotum* almost semicircular, about one-half wider than long; deeply trisulcate and with a feeble longitudinal depression on each side more densely punctate; shining; with rather coarse sparse punctures. *Elytra* coarsely but regularly punctate; with an indefinite sulcus behind humerus; disk flattened and with distinct scaly sculpture. *Abdomen* with scaly sculpture, less distinct beneath. *Male*, head large and quadrate, tuberculate at posterior angles beneath, strongly dentate in front of middle; supra-antennal prominences abrupt; mandibles very long, with two small blunt teeth at middle inside; gular sutures almost entirely obliterated; median sulcus of pronotum decidedly broadened anteriorly, bottom with scaly sculpture; ninth abdominal sternite flattened. *Female*, head narrower than pronotum, subsemicircular, truncate in front, mandibles slightly elongate, with two rather long inner teeth; gular sutures strongly converging on constricted part, united and broadly Y-shaped anteriorly; median sulcus of pronotum feebly broadened anteriorly; eighth sternite broadly arcuate, ninth flattened. Length, 2 to 3 mm.

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[5] This ground sculpture must not be confused with the fine short strigulae found on *glareosus*, which runs through the second half of this couplet.

Type locality.—"America septentrionali." Of *americanus*, "America boreali"; of *pumilio*, "Insula Taiti."

Types.—In Zoologische Museum, Berlin. Of *americanus*, in Zoological Museum, Helsingfors; of *pumilio*, in Naturhistorisk Riksmuseum, Stockholm.

Records.—The following are the records known to me:

Antilles: (Fauvel, 1891).

Cuba: (DuVal 1857; Fauvel, 1863; Leng and Mutchler, 1914), Cayamas (Schwarz, in U.S.N.M.), Soledad (Weber, in M.C.Z.).

Jamaica: (Leng and Mutchler, 1917; Gowdey, 1926), Spanish Town (Blackwelder station 377), Montego Bay (A.M.N.H.), Santa Cruz (Blackwelder station 421), Trinityville (Blackwelder station 428), Milk River (Blackwelder station 415), Black River (Blackwelder station 420), Moneague (Blackwelder station 375), May Pen (Blackwelder station 425C), Bath in St. Thomas (Blackwelder station 392C), Balaclava (Blackwelder stations 397B, 399D), Kingston (Blackwelder stations 1C, 1D), Troy (Blackwelder station 409), Newport (Blackwelder station 412A).

Hispaniola: Haiti, Kenskoff (Blackwelder stations 23B, 23E), Saint Marc (Blackwelder stations 25, 26), Morne La Selle (Blackwelder station 22), La Visite (Darlington, in M.C.Z.), Diquini (Mann, in M.C.Z.); Dominican Republic, Moca (Blackwelder station 40), Boca Chica (Blackwelder station 41), Puerto Plata (Blackwelder station 36), San José de las Matas (Blackwelder station 38), Rio San Juan (G. S. Miller, in U.S.N.M.), Loma Rucilla (Darlington, in M.C.Z.), Santiago (Blackwelder station 40).

Puerto Rico: Matrullas (Blackwelder station 61B), Maricao (Blackwelder station 47A), Villalba (Blackwelder station 62), Ponce (H. L. Dozier, in U.S.N.M.), Mayagüez (Blackwelder station 50A), San Juan (Blackwelder station 353B), Aguadilla (Busck, in U.S.N.M.).

St. Thomas: (Erichson, 1840; DuVal, 1857; Fauvel, 1863; Sharp, 1887; Leng and Mutchler, 1914).

St. Croix: (Blackwelder station 330).

Antigua: (Blackwelder stations 279B, 281B, 285A).

Montserrat: (Blackwelder station 270).

Guadeloupe: (Fleutiaux and Sallé, 1889; Leng and Mutchler, 1914; Blackwelder station 82; A.M.N.H.).

Dominica: (Blackwelder stations 240, 244B, 254B; A.M.N.H.).

St. Lucia: (Blackwelder station 213).

St. Vincent: (Blackwelder stations 175, 179).

Grenadines: Carriacou (Blackwelder stations 143B, 144A, 147).

Grenada: (Blackwelder stations 139, 156).

Tobago: (Blackwelder stations 117A, 122).

Trinidad: La Brea (Blackwelder station 106A).

South America: Venezuela, Brazil, Argentina, Peru, Colombia (Erichson, 1840; Fauvel, 1891, 1902; etc.).

Central America: (Fauvel, 1891; etc.); Mexico, Guatemala, Nicaragua, Panama (Sharp, 1887); Mexico (Casey, 1893; A.M.N.H.).

North America: (Gravenhorst, 1806; Mannerheim, 1830; Erichson, 1840; LeConte, 1877; Fauvel, 1891; Casey, 1893; Fauvel, 1902; etc.).

Atlantic Islands: MADEIRA, REUNION, CANARIES, MAURITIUS (Fauvel, 1891, 1902; Wollaston, 1865).
Europe: (FRANCE (Fauvel, 1902).
Oriental Region: TAHITI (Boheman, 1858; Fauvel, 1891, 1902).

Specimens examined.—I have examined 137 examples from the West Indies in the British Museum, 4 in the Museum of Comparative Zoology, 28 in the American Museum of Natural History, 7 in the United States National Museum, and 198 collected by me in 1935–37. I have also examined specimens from North America and Central America.

Remarks.—The above description was taken principally from a pair from San Juan, P. R. This species is one of the most abundant staphylinids in the West Indies. Besides the specimens enumerated above, which are the only ones yet mounted, I collected several hundred of them in a few minutes on several occasions.

I have collected this species from dung, manure, excrement, sheep dung, and burro dung.

2. OXYTELUS PLUVIUS, new species

Description.—Nigropiceous, elytra piceotestaceous. *Head* gradually rounded posteriorly from the eyes, constricted part densely punctate; posterior half of vertex longitudinally trisulcate, the median sulcus finer, and with longitudinal ridges at sides; supra-antennal prominences large; with a few coarse punctures irregularly placed, but clypeal area smooth; margin of clypeus with three angulate prominences, the middle one produced into a tooth (small in female but much elongate in male); labrum rather concealed, three times as wide as long, rather vaguely emarginate throughout width; antennae very stout, segments transverse from the fifth; mandibles moderately elongate, with one or two small inner teeth not near apex; maxillary palpus subulate but segment less distinctly smaller than third; gular sutures approximate on constricted part but united anteriorly (absent in male); submentum small, unusually convex. *Pronotum* one-eighth wider than long, nearly one-fifth wider than head; widest near apex but not strongly narrowed to base; sides biarcuate, basal angles prominent; with three deep and regular longitudinal grooves and two additional ones apically; with a large irregular depression near middle of side; disk very convex between the sulcae, shining, very sparsely and moderately finely punctate. *Elytra* one-sixth wider than pronotum, conjointly nearly one-half wider than long; vaguely longitudinally channeled on disk, with one distinct channel behind humerus; moderately but rather irregularly sparsely punctate, shining. *Male*, seventh sternite finely punctured and pubescent, eighth with a broad and feeble trapezoidal emargination, depressed, ninth longitudinally depressed. *Female*, all segments smooth, eighth sternite feebly lobed at center, ninth convex. Length, 2¼ mm.

Type locality.—Trinidad, about 5 miles southwest by south of Manzanilla junction on the Plum Mitan Road, county of St. Andrew, ward of Turure.

Types.—Holotype, male, and paratype, female, U.S.N.M. No. 52370, collected by me on December 18, 1935.

Records.—The following is the only record known to me:

Trinidad: Manzanilla (Blackwelder station 103A).

Specimens examined.—I have seen only the two types.

Remarks.—This species seems to be very similar to *O. sulcifer* Fauvel from Venezuela but differs from his description as follows: Clypeus dentate in both sexes, pronotum with five sulci, elytra feebly rugose at base; size less than 2½ mm. These differences may be due to omissions in Fauvel's description, but until the two species can be directly compared I think it better to treat them as distinct.

My specimens were collected from rotting cocoa pods.

3. OXYTELUS DENTIFRONS Fauvel

Oxytelus dentifrons FAUVEL, 1904, p. 107.—BERNHAUER and SCHUBERT, 1911, p. 112.—LENG and MUTCHLER, 1914, p. 404.

Description.—Rufopiceous. *Head* not narrowed behind eyes for about their length, then rather abruptly constricted; vertex rugosely sculptured at base and sides; with scaly ground sculpture especially anteriorly; labrum twice as wide as long, emarginate, angles acute; outer segments of antennae barely transverse; palpi rather long, subulate; gular sutures strongly converging on constricted part, united and broadly Y-shaped in front. *Pronotum* obtrapezoidal, base and sides feebly arcuate; with three deep but somewhat irregular longitudinal sulci; with a feebly carinate false margin above true margin and a large depression above both at center on each side; surface not evidently punctate but covered with short irregular channels; with some scaly ground sculpture in bottom of impressions. *Elytra* nearly one-third wider than long, wider than pronotum; sides feebly arcuate, posterior angles narrowly rounded; surface covered with short carinate elevations, slightly serial; with traces of a composite groove behind humerus. *Abdomen* with obsolescent scaly ground sculpture. *Male*, head quadrate, a little wider than pronotum, anterior margin prolonged in a large tooth at middle, mandibles much elongate; eighth sternite biemarginate, forming a broad median lobe. *Female*, head transverse but triangular in front, narrower than pronotum, without anterior tooth; mandibles moderately elongate; eighth sternite very feebly biemarginate and lobed at center. Length, 2½ to 2¾ mm.

Type locality.—"Amazone: Pebas (de Mathan). Antilles: Saint-Vincent (Smith)."

Types.—Presumably in the collection of Blanche Rancin, Caën, France.

Records.—The following are the records known to me:

St. Vincent: (Fauvel, 1904; British Museum).
South America: BRAZIL (Fauvel, 1904).

Specimens examined.—I have examined 10 specimens in the British Museum and borrowed 2 of these for further study.

Remarks.—The specimens in the British Museum are undoubtedly part of the series from which Fauvel's examples came. I have observed in this series that the median tooth of the front of the head in the male varies greatly in size.

I find no record of the habits of this species.

4. OXYTELUS INCISUS Motschulsky

Oxytelus incisus MOTSCHULSKY, 1857a, p. 504.
Oxytelus ferrugineus KRAATZ, 1859b, p. 173.
Oxytelus laevior SHARP, 1874, p. 92.
Oxytelus bledioides BLACKBURN and SHARP, 1885, p. 125.
Oxytelus laxipennis FAIRMAIRE, 1893, p. 527.

Description.—Piceorufous to testaceous, generally with elytra and apex of abdominal segments paler. *Head* rounded posteriorly and constricted close to eyes (farther in male); vertex flattened and continuous with clypeus; with moderate punctures separated by one to two times their diameter; surface minutely uneven and with more or less scaly sculpture; apical antennal segments enlarged but not transverse; mandibles short in both sexes; labrum twice as wide as long, emarginate, anterior angles prominent; maxillary palpi large, fourth segment not longer than third, nor acicular; gular sutures narrowly converging on constricted part, united in front to base of very small convex submentum. *Pronotum* widest at apical fourth, sides curved in front, straight behind, posterior angles rounded but visible; with three very irregular longitudinal impressions, and slight depressions at sides; coarsely and very irregularly punctate; without definite ground sculpture. *Elytra* with sides arcuate and apical angles rounded; with indefinite longitudinally punctate grooves; but no definite post-humeral sulcus; no definite ground sculpture. *Abdomen* with semicircular apical part of each tergite set off by an abrupt escarpment; obsoletely sculptured. *Male*, vertex with short median groove at base; pronotum nearly one-half wider than long, about one-twentieth wider than head; elytra one-tenth wider than pronotum, one-four wider than long; seventh abdominal sternite with two blunt teeth near center; eighth narrowly and shallowly incised to set off a flattened quadrate middle plate which is lobed at center posteriorly, outer angles of incisure prolonged as triangular lobes; ninth sternite longitudinally concave. *Female*, vertex without groove, pronotum three-sevenths wider than long, one-ninth wider than head; elytra one-fifth wider than pronotum, about one-third wider than long; seventh and eighth sternites unmodified. Length 2½ to 3½ mm.

Type locality.—". . . insula Ceylan . . .; India orientali." Of *laevior*, Hiogo, Japan; of *bledioides*, "near Honolulu," Hawaiian Islands; of *laxipennis*, Zanzibar.

Types.—Presumably in the Deutsche Entomologische Institut, Berlin-Dahlem. Of *laevior* and *bledioides*, in the British Museum; of *laxipennis*, probably in the Musée Royal Histoire Naturelle Belgique, Brussels.

Records.—The following are the records known to me:

Bermuda: (Brooks, in M.C.Z.), Tuckers Island (A. E. Verrill, in M.C.Z.).

Cuba: (A.M.N.H.), Cayamas (Schwarz, in U.S.N.M.), Soledad (Weber and Darlington, in M.C.Z. and U.S.N.M.), Baragua (C. F. Stahl, in M.C.Z.).

Jamaica: Black River (Blackwelder stations 413B, 416, 420), Spanish Town (Blackwelder station 377), Santa Cruz (Blackwelder station 421), Trinityville (Blackwelder station 428), Milk River (Blackwelder station 415), May Pen (Blackwelder station 425C), Hope Bay (Blackwelder station 363B), Bath in St. Thomas (Blackwelder station 392C), Kingston (Blackwelder stations 1C, 385), Montego Bay (A.M.N.H.), Troy (Blackwelder station 409), Newport (Blackwelder station 412A).

Hispaniola: HAITI (Blackwelder); DOMINICAN REPUBLIC, Puerto Plata (Blackwelder station 36), Boca Chica (Blackwelder station 41).

Puerto Rico: Sabana Grande (Dozier, in U.S.N.M.), San German (Dozier, in U.S.N.M.), Lajas (Dozier, in U.S.N.M.), Yauco (Dozier, in U.S.N.M.), Juana Diaz (Dozier, in U.S.N.M.), Guanajibo (Dozier, in U.S.N.M.), Coamo (Dozier, in U.S.N.M.), Adjuntas (Blackwelder stations 48C, 49), Maricao (Blackwelder station 47A), Lake Cartagena (Blackwelder station 46A), San Juan (Blackwelder stations 45, 52, 345, 353B), Mameyes (Blackwelder station 57), Mayagüez (Busck and Dozier, in U.S.N.M.; Blackwelder station 50A), Guanica (Dozier, in U.S.N.M.; Blackwelder station 357B), Aibonito (Blackwelder station 59), Aguadilla (Busck, in U.S.N.M.).

St. Thomas: (Blackwelder station 67).

St. Croix: (Blackwelder stations 317, 325, 327, 328, 330, 331, 332, 333, 335B, 338, 339, 341, 344).

St. Kitts: (Blackwelder stations 299, 302, 304, 306).

Antigua: (Blackwelder stations 275A, 280B, 281A, 285A, 285B, 284, 287, 290, 292, 294).

Montserrat: (Blackwelder stations 265B, 263, 270; Hubbard, in U.S.N.M.).

Guadeloupe: (Fauvel, 1901; Blackwelder stations 70, 75, 77B, 78B, 86, 87, 89, 90B; A.M.N.H.).

Dominica: (Blackwelder stations 236, 238, 240, 245, 248C, 250, 252, 254B, 257B, 258; A.M.N.H.).

St. Lucia: (Blackwelder stations 212, 213).

Barbados: (Blackwelder stations 188, 194, 195, 203, 202B).

St. Vincent: (Fauvel, 1901; Blackwelder stations 164, 165, 168, 172, 175, 176B, 180, 181, 185).

Grenadines: Mustique (Fauvel, 1901).

Grenada: Fauvel, 1901; Blackwelder stations 131, 138, 139, 151, 156).

Tobago: (Blackwelder station 117A).

Trinidad: La Brea (Blackwelder station 106B), Port of Spain (Blackwelder station 110), St. Joseph (Blackwelder station 130), St. Augustine (Darlington, in M.C.Z.).

South America: COLOMBIA (Fauvel, 1901).

Central America: PANAMA (Fauvel, 1901).

Africa: ZANZIBAR, MADAGASCAR, COMORES, SEYCHELLES, MAURICE (Fauvel, 1901; Fairmaire, 1893).

Orient: CEYLON, BORNEO, SUMATRA, CELEBES, JAVA, INDIA, BURMA, SINGAPORE, SIAM, JAPAN, COCHIN CHINA, HAWAII (Sharp, 1874; Blackburn and Sharp, 1885; Sharp, 1908; Fauvel, 1901, etc.).

Specimens examined.—I have examined 201 specimens from the West Indies in the British Museum (and a large series from the rest of the world), 6 from the Museum of Comparative Zoology, 180 in the American Museum of Natural History, 55 in the United States National Museum, and 873 collected by me in 1935–37.

Remarks.—This is probably the commonest and most wide-spread staphylinid in the West Indies and will undoubtedly be found on all the islands where cattle or horses are kept.

I have collected it from dung, manure, excrement, and bat guano, flying at dusk, and on the muddy bank of ponds.

5. OXYTELUS EREMUS, new species

Description.—Head black, pronotum piceorufous, elytra and abdomen piceotestaceous. *Head* subtriangular; abruptly constricted immediately behind the eyes; supra-antennal prominences large; vertex with a median sulcus at base; basal half shining but coarsely punctured and somewhat channeled; in front even but with coarse scaly sculpture, which extends also around the eyes and around the constricted part; antennal segments not transverse; labrum twice as wide as long, emarginate; palpi subulate but fourth segment not much more slender than third; gular sutures strongly convergent on constricted part, united and broadly Y-shaped in front. *Pronotum* nearly one-fifth wider than head, nearly one-third wider than long, obtrapezoidal, widest at apical fourth, basal angles distinct; with three longitudinal sulci rather poorly defined; coarsely and irregularly punctate, more strongly at sides; with a vague depression above middle of sides. *Elytra* nearly one-sixth wider than pronotum, one-fourth wider than long, posterior angles narrowly rounded; shining, moderately coarsely punctate throughout, punctures joined longitudinally by moderately fine channels; with a definite sulcus behind humerus. *Abdomen* with fine scaly sculpture. *Male*, eighth sternite with two deep incisures dividing the segment into three lobes, center lobe rectangular and slightly concave; ninth sternite broad and concave. Length, 3½ mm.

Type locality.—Puerto Rico, Guanajibo.

Types.—Holotype, male, U.S.N.M. No. 52369, collected by H. L. Dozier on April 2, 1936.

Records.—The following is the only record known to me:

Puerto Rico: Guanajibo (Dozier, in U.S.N.M.).

Specimens examined.—The type is the only example seen.

Remarks.—This specimen was at first thought to be an extreme development of *O. incisus.* It differs, however, from that species not only in the form of the eighth sternite but also in the sculpture of the head, pronotum, and elytra. I find very little variation in these characters in a very large series of *incisus* and therefore think it likely that this will prove to be distinct. I have seen specimens of *incisus* taken at Guanajibo but not at the same time as this specimen, which was the only one sent in.

I have no record of the habits of this species.

6. OXYTELUS SCORPIO Fauvel

Oxytelus scorpio FAUVEL, 1904, p. 106.—BERNHAUER and SCHUBERT, 1911, p. 119.—LENG and MUTCHLER, 1914, p. 404.—SCHEERPELTZ, 1933, p. 1103.

Description.—Opaque piceous-black throughout. *Head* rather quadrate, not narrowed behind the eyes for about their length, then abruptly constricted; vertex with two feeble impressions near base and two inside of the supra-antennal prominences; clypeal area quadrate, set off by a feebly impressed line; with very dense and very fine scaly sculpture throughout; with a setigerous puncture on each antennal prominence and behind each eye; antennae with outer segments transverse; labrum twice as wide as long, broadly but feebly emarginate, angles prominent; mandibles short; maxillary palpi long, second and third segments enlarged, fourth slender and nearly twice as long as third; gular sutures converging on constricted part, united and broadly Y-shaped in front. *Pronotum* nearly one-half wider than long, one-twentieth wider than head; subsemicircular, but posterior angles just discernible; surface vaguely depressed near middle of sides, and with three feeble longitudinal impressions on disk, forming four indefinite ridges; throughout with fine and very dense scaly sculpture. *Elytra* one-fifth wider than pronotum, one-fourth wider than long, posterior angles narrowly rounded; with fine and dense scaly sculpture, but scales appearing to be arranged somewhat longitudinally. *Abdomen* vaguely submuricately sculptured. *Male,* eighth sternite narrowly and shallowly emarginate at middle, the emargination filled by translucent membrane. *Female,* eighth sternite feebly lobed at center. Length, 1¼ to 1¾ mm.

Type locality.—"Saint-Domingue, dans les tabacs importes" (=Dominican Republic).

Types.—Presumably in the collection of Blanche Rancin, Caën, France.

Records.—The following are the records known to me:

Jamaica: Trinityville (Blackwelder station 428), Fern Gully (Blackwelder station 374), Balaclava (Blackwelder stations 397B, 399D), Milk River (Blackwelder station 415), Ocho Rios (Blackwelder station 373), Montego Bay (Blackwelder station 407), Kingston (Blackwelder station 381), Black River (Blackwelder station 420), Moneague (Blackwelder station 375), Santa Cruz (Blackwelder station 421), Troy (Blackwelder station 409), Newport (Blackwelder station 412A).

Hispaniola: (Leng and Mutchler, 1914; Scheerpeltz, 1933); HAITI, Diquini (Mann, in M.C.Z. and U.S.N.M.), Morne La Hotte (Darlington, in M.C.Z.), St. Marc (Blackwelder station 25), La Visité (Darlington, in M.C.Z.); DOMINICAN REPUBLIC (Fauvel, 1904); Barahona (Darlington, in M.C.Z.).

Puerto Rico: Maricao (Blackwelder station 47A).

Specimens examined.—I have seen 7 examples from the Museum of Comparative Zoology and 47 collected by me in 1935–37.

Remarks.—This species can be confused with none other known to me, but I find no records of it since Fauvel's original description.

I have collected it from dung, from under seaweed, by sweeping at night, and flying at dusk.

7. OXYTELUS GLAREOSUS Wollaston

Oxytelus glareosus WOLLASTON, 1854, p. 610; 1864, p. 598; 1865, p. 517.—FAUVEL, 1902b, p. 66.—BERNHAUER and SCHUBERT, 1911, p. 113.—CAMERON, 1928b, p. 103.

Oxytelus glarcesus LENG and MUTCHLER, 1914, p. 404 (misspelling).

Description.—Piceous to piceotestaceous, with pronotum testaceous. *Head* not narrowed behind the eyes for a distance greater than their length, angles rounded; with two foveae and a median groove at base of vertex, supra-antennal prominences moderate; antennal segments not strongly transverse; labrum narrow but twice as wide as long, emarginate; mandibles somewhat elongate, with two inner teeth near apex; all four palpi subulate; gular sutures united at pits in center, continued as one suture to submentum; surface above irregularly carinulately sculptured, more coarsely at sides posteriorly. *Pronotum* nearly one-half wider than long, widest near apex, strongly narrowed posteriorly, hind angles rounded; with a pair of indefinite impressions on the disk and a short groove on the midline at base and apex, and a feeble depression near center of side margins; surface covered with fine carinate longitudinal elevations; no punctures visible. *Elytra* nearly three-tenths wider than pronotum, one-thirteenth wider than long; surface covered with fine carinate longitudinal elevations as pronotum; without punctures. *Male*, eighth sternite with a flattening at middle outlined by two feeble ridges formed of muricate punctures; ninth sternite usually with an irregular apical depression. *Female*, eighth sternite produced at center, ninth more acutely produced. Length, 1 to 1¾ mm.

Type locality.—"Madera australi," Levada.

Types.—In Wollaston collection in the British Museum.

Records.—The following are the records known to me:

Jamaica: Milk River (Blackwelder station 415), Moneague (Blackwelder station 375), Trinityville (Blackwelder station 428), Santa Cruz (Blackwelder station 421), Spanish Town (Blackwelder station 377), Montego Bay (Blackwelder station 407; A.M.N.H.), Troy (Blackwelder station 409).
Dominica: (Blackwelder station 252; Weber, in M.C.Z. and U.S.N.M.).
St. Vincent: (Fauvel, 1902; British Museum).
Grenada: (Fauvel, 1902; British Museum).
Atlantic Islands: MADEIRA, CANARIES, MAURITIUS (Fauvel, 1902; Wollaston, 1854, 1864, 1865).

Specimens examined.—I have examined 147 examples from the West Indies in the British Museum, 3 in the American Museum of Natural History, 2 from the Museum of Comparative Zoology, and 41 collected by me in 1935–37.

Remarks.—This is one of our smallest species. It is very distinct in its carinulate sculpture. It has been regarded as an introduction into various countries in commerce from Madeira, where it was first discovered. On the other hand, there is no evidence that it had not existed for many years in the West Indies before it was discovered there, and it is impossible to state the region of its origin.

I have collected it under seaweed on a coral reef and flying at dusk.

8. OXYTELUS CHAPINI, new species

Description.—Piceous, pronotum testaceous, elytra cinnamomeous. *Head* not narrowed behind eyes for about their length, then abruptly; clypeal area outlined by a U-shaped impressed line; surface shining, with rather fine punctures, separated by about twice their diameter; clypeus nearly smooth; with a setigerous fovea behind and above the eye; outer segments of antennae transverse; labrum four times as wide as long, narrowly feebly notched at center and feebly emarginate on each side; mandibles short; palpi subulate; gular sutures united from pits anteriorly. *Pronotum* nearly one-third wider than long, more than one-fifth wider than head, widest near apex, moderately narrowed posteriorly, angles rounded; with only traces of three longitudinal grooves and lateral depressions; shining, with moderate but irregularly shaped punctures, generally separated by once to twice their length. *Elytra* about one-eighth wider than pronotum, one-third wider than long; sides nearly straight, apical angles narrowly rounded; smooth, shining, with moderate punctures separated by twice to thrice their diameter. *Male*, eighth sternite feebly lobed at center, ninth somewhat flattened at center throughout. *Female*, eighth sternite feebly lobed at center, ninth divided along middle. Length, 1¼ to 2 mm.

Type locality.—Jamaica, between Spanish Town and Half Way Tree, Kingston, parish of St. Andrew.

Types.—Holotype, male, and 23 paratypes, U.S.N.M. No. 52368, collected by Chapin and Blackwelder on February 2, 1937. Two paratypes have been deposited in the collection of Dr. M. Cameron and two in the British Museum.

Records.—The following are the records known to me:

Jamaica: Spanish Town (Blackwelder station 377), Troy (Blackwelder station 409), Montego Bay (A.M.N.H.).

Specimens examined.—I have seen the 24 types, all taken at the same time and place, 1 other specimen in the United States National Museum, and 2 examples in the American Museum of Natural History.

Remarks.—This species is chiefly remarkable for its smooth and shining surface.

It was taken flying at dusk by the writer and Dr. E. A. Chapin after whom it is named.

9. OXYTELUS JAMAICENSIS, new species

Description.—Black, feebly rufescent in part. *Head* arcuately expanded behind the eyes, hind angles rounded; neck densely sculptured; entire upper surface densely strigose, the strigae converging anteriorly from basal angles, without isolated grooves or ridges; supraantennal prominences very large; with rather indefinite ground sculpture between the strigae; clypeus rounded in front; labrum transverse, concealed; antennae rather slender, segments transverse from eighth to tenth only; mandibles not elongate; third segment of maxillary palpus very large, cup-shaped, fourth as long but narrower and cylindrical and diagonally truncate at apex; gular sutures absent in male. *Pronotum* over one-third wider than long, as wide as head (in male); widest near apex and moderately narrowed to base; sides biarcuate, margin double because of complete ridge forming secondary margin and setting off a deep lateral groove scarcely visible from above; basal angles moderately prominent; with a single groove along midline, deeper in front where it divides a transverse marginal prominence; rest of surface densely longitudinally strigose as head, but with ground sculpture a little more distinct. *Elytra* one-third wider than pronotum, conjointly one-fifth wider than long; with strigae as on pronotum but stronger, less dense, and occasionally interrupted especially anteriorly, rather sinuate (from humerus to suture to apical angle); with indistinct ground sculpture in interstices. *Male*, seventh sternite vaguely emarginate, eighth somewhat depressed and feebly emarginate; ninth longitudinally depressed. *Female*, unknown. Length, 3 mm.

Type locality.—Jamaica, main range of Blue Mountains, elevation 5,000 to 7,388 feet.

Types.—Holotype, Museum of Comparative Zoology, collected by Dr. P. J. Darlington on August 17–19, 1934.

Records.—The following is the only record known to me:

Jamaica: Blue Mountains (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the holotype.

Remarks.—This species is very distinct from all others in the West Indies. It can be recognized at once by its strigose surface.

I have received no record of its habits.

IX. Genus PAROSUS Sharp

Parosus SHARP, 1887, p. 704.

Genotype.—*P. hilaris* Sharp (monobasic).

Diagnosis.—Body depressed, punctate; antennae inserted at sides of head close to eyes; labrum profoundly emarginate at middle and dentate at sides: mandibles porrect, curved; maxillary palpi subulate, third segment much enlarged; gular sutures united at gular pits in center of ventral surface, continued as single suture; prosternum short, anterior coxal cavities confluent, widely open behind; coxae not very prominent though rather transverse; middle coxae contiguous; posterior coxae contiguous, not expanded laterally under the femora; abdomen strongly margined; sternites of the first and second segments not present; tibiae unarmed; tarsi 3-segmented.

Remarks.—The genotype from Panama and the two species from the West Indies are the only members of this genus known. The above diagnosis has been taken from Sharp's remarks and from a series of *P. hilaris* in the United States National Museum.

KEY TO WEST INDIAN SPECIES OF PAROSUS

1. Abdomen impunctate, shining________________________________ 1. skalitzkyi
Abdomen distinctly muricately punctate____________________ 2. antillarum

1. PAROSUS SKALITZKYI Bernhauer

Parosus skalitzkyi BERNHAUER, 1905, p. 12.—BERNHAUER and SCHUBERT, 1911, p. 107.—WENDELER, 1928b, p. 33.

Parosus skalitskyi LENG and MUTCHLER, 1914, p. 403 (misspelling).

Description.—Piceous, elytra brownish. *Head* much wider than pronotum, wider than long, with eyes prominent, narrowed behind these; detached at the base; posteriorly with a slightly impressed middle groove between the antennal fossae; before this groove shining smooth, behind it coarsely and moderately densely punctate; outer segments of antennae transverse. *Pronotum* much narrower than elytra; posteriorly narrowed, heart-shaped; on each side of smooth shining midline with a longitudinal depression; at the sides moderately finely and densely punctate. *Elytra* much longer than pronotum, somewhat longer than wide, very finely and sparsely, obsoletely punctate. *Abdomen* entirely impunctate, shining. Length, 2½ mm. (From Bernhauer.)

Type locality.—"Ins. St. Vincent, Grenada (Grand Etang) leg. H. H. Smith."

Types.—Presumably in the British Museum, though I did not see them.

Records.—The following are the records known to me:

St. Vincent: (Bernhauer, 1905; Leng and Mutchler, 1914).
Grenada: (Bernhauer, 1905; Leng and Mutchler, 1914).

Specimens examined.—I have seen no examples of this species.

Remarks.—Bernhauer remarks that this species is readily distinguishable from *P. hilaris* Sharp by its different color and much longer elytra.

I find no record of its habits.

2. PAROSUS ANTILLARUM Wendeler

Parosus antillarum Wendeler, 1928b, p. 33.—Scheerpeltz, 1933, p. 1090.

Description.—Similar to *P. skalitzkyi* Bernhauer but distinguished by the following: Outer segments of antennae not wider than long, but darker. Punctation of pronotum sometimes very dense at the sides in front of the basal angles, almost rugose, and as strong as that on the head. *Elytra* half as strongly but just as densely punctate as pronotum, with very fine pubescence. Abdomen feebly shining, very distinctly muricately and sparsely punctate. Length, 2½ mm. (From Wendeler.)

Type locality.—Guadeloupe, Trois Rivières.

Types.—One example in collection of Hans Wendeler, Berlin-Karow, from the Dufau collection through H. Georg Böttcher.

Records.—The following is the only record known to me:

Guadeloupe: Basse Terre (Wendeler, 1928).

Specimens examined.—I have seen no example of this species.

Remarks.—This species is very similar to *P. skalitzkyi* and is based on a single specimen. Future collecting must be relied upon to determine the distinctness or identity of the two species.

I find no record of its habits.

X. Genus THINOBIUS Kiesenwetter

Thinobius Kiesenwetter, 1884, p. 355.
Subgenus *Thinobiellus* Bernhauer, 1909b, p. 198.
Subgenus *Thiphonilus* Tottenham, 1939, p. 225.
Thinophilus Mulsant and Rey, 1879, p. 322. (Not Wahlberg, 1844.)

Genotypes.—*Thinobius ciliatus* Kiesenwetter (monobasic). Of *Thinophilus* and *Thiphonilus*, *Thinobius linearis* Kraatz=*Thinobius* (*Thinophilus*, *Thiphonilus*) *linearis* Kraatz (designated by Tottenham, 1939); of *Thinobiellus*, *Thinobius* (*Thinobiellus*) *rossicus* Bernhauer (monobasic).

Diagnosis.—Head more or less cylindrical; hypostomal suture usually visible; without ocelli; antennae 11-segmented, inserted at sides of clypeus near eyes; labrum transverse; fourth segment of maxillary palpus subulate; gular sutures united in front; pronotum not sulcate, without lobes behind coxae; anterior coxal cavities broadly open behind, confluent; front coxae conical, prominent; scutellum visible; inner apex of elytra rounded; middle coxal cavities confluent; posterior coxae not expanded laterally; abdomen margined, first sternite absent; tibiae not spinose or dentate; tarsi 2-segmented.

Remarks.—This genus is very inadequately known throughout the New World. Ten species have been described from the West Indies, but 6 of these appear to me to be synonyms of the other 4. Sr. Bierig has described 5 species from Cuba. Of these he kindly deposited "cotypes" in the United States National Museum of *flavifer*, *morio*, *nebulosus*, and *cubensis*. On the basis of these examples and the original descriptions I believe all these to be synonyms of Dr. Cameron's species *ornatus* and *opaculus*. And *piceus* of Cameron I believe is the same as *nitidulus* Bernhauer. The 10 species are therefore reduced to 4, and 2 others are proposed as new.

I have seen type material of all the names except *tenebrophilus* Bierig, and, altogether, 64 examples from the West Indies.

KEY TO WEST INDIAN SPECIES OF THINOBIUS

1.	Apical fourth of elytra testaceous or luteous	1. ornatus
	Elytra unicolorous	2
2.	Pronotum nearly semicircular	3
	Pronotum subquadrate	5
3.	Elytra very densely and minutely sculptured	4
	Elytra not sculptured but with dense punctures	4. jamaicensis
4.	Pronotum and base of abdomen testaceous	3. miricornis
	Pronotum, elytra, and abdomen concolorous	2. opaculus
5.	Pronotum one-half to one-fourth broader than long	6. nitidulus
	Pronotum one-seventh or less broader than long	5. exasperatus

1. THINOBIUS ORNATUS Cameron

Thinobius (s. str.) *ornatus* Cameron, 1923, p. 397.—Scheerpeltz, 1933, p. 1127.
Thinobius (*Thinophilus*) *tenebrophilus* Bierig, 1934e, p. 215, pl. 11, fig. 4.
Thinobius (*Thinophilus*) *flavifer* Bierig, 1934e, p. 216.

Description.—Opaque black or piceocastaneous, apical third of elytra testaceous, pronotum with transverse basal band of lighter pubescence. *Head* with eyes separated from constriction by about their length; with dense granulose sculpture. *Pronotum* one-fourth wider than long, scarcely semicircular although the hind angles are broadly rounded; with sculpture not quite as distinct as on head. *Elytra* with sculpture not distinctly granulose, less distinct than on pronotum. Length, 1 to 1¼ mm.

Type locality.—Haiti. Of *tenebrophilus*, Cuba; of *flavifer*, Cuba.

Types.—Unique type in collection of Dr. Cameron. Of *tenebrophilus* and *flavifer*, in collection of Alexander Bierig (one "cotype" of *flavifer* in the United States National Museum, No. 52713.)

Records.—The following are the records known to me:

Cuba: (Rio Almendares (Bierig, 1934, as *tenebrophilus*), Caimito del Guayabal Bierig, 1934, as *tenebrophilus* and *flavifer*), La Lisa (Bierig, 1934, as *flavifer*), Habana-Vedado (Bierig, 1934, as *flavifer*), Sierra de los Organos, San Vicente (Bierig, 1934, as *flavifer;* U.S.N.M.)

Jamaica: Milk River (Blackwelder station 415), Trinityville (Blackwelder station 428), Moneague (Blackwelder station 375), Santa Cruz (Blackwelder station 421), Spanish Town (Blackwelder station 377), Black River (Blackwelder station 419).

Hispaniola: HAITI (Cameron, 1923; Scheerpeltz, 1933; Cameron collection).

Specimen examined.—I have seen the type of *ornatus* in Dr. Cameron's collection, a paratype of *flavifer* in the United States National Museum, and 18 examples collected by us in 1935–37.

Remarks.—This species is very distinct by its bicolored elytra. I can find no way to separate the two Cuban species of Sr. Bierig or to distinguish them from Dr. Cameron's species. The description was drawn from a Jamaican example.

Our specimens were taken from cow dung and flying at dusk.

2. THINOBIUS OPACULUS Cameron

Thinobius (s. str.) *opaculus* CAMERON, 1923, p. 396.—SCHEERPELTZ, 1923, p. 1127.
Thinobius (s. str.) *morio* BIERIG, 1934e, p. 217, 218, 219.
Thinobius (s. str.) *nebulosus* BIERIG, 1934e, p. 218, 219.
Thinobius (s. str.) *cubensis* BIERIG, 1934e, p. 219, pl. 11, f. 5.

Description.—Piceocastaneous or dark fulvous. *Head* with eyes separated from constriction by less than their length; surface opaque but sculpture very fine and indistinct. *Pronotum* two-fifths wider than long, nearly semicircular; sculpture as on head. *Elytra* with inner apical angles very broadly rounded; with sculptures as on pronotum. Length, 1 to 1½ mm.

Type locality.—Haiti. Of *morio*, Cuba, Rio Almendares; of *nebulosus*, Cuba, Playa de Marianao; of *cubensis*, Cuba.

Types.—Unique type in collection of Dr. Cameron. Of *morio*, *nebulosus*, and *cubensis*, in collection of Sr. Bierig (paratypes of each in United States National Museum, Nos. 52712, 52714, 52711).

Records.—The following are the records known to me:

Cuba: Rio Almendares (Bierig, 1934, as *morio;* U.S.N.M.), Playa de Marianao (Bierig, 1934, as *nebulosus;* U.S.N.M.), Laguna del Somorrostro (Bierig, 1934, as *cubensis*), Laguna La Canoa (Bierig, 1934, as *cubensis*), Caimito del Guayabal (Bierig, 1934, as *cubensis*), Aspiro (Bierig, 1934, as *cubensis;* U.S.N.M.), Rio Cristal (Bierig, in U.S.N.M.)

Jamaica: (Hubbard, in U.S.N.M.), Catadupa (Blackwelder station 405).

Hispaniola: Haiti (Cameron, 1923; Scheerpeltz, 1933; Cameron collection).

Dominica: (Blackwelder station 254A).

Specimens examined.—I have seen the unique type in Dr. Cameron's collection, paratypes of each of Bierig's species in the United States National Museum, and three examples collected by me in 1935–37.

Remarks.—Here again I am unable to separate Bierig's species (cotypes) or distinguish them from Dr. Cameron's species or my own specimens. The species is distinguished by its dense sculpture and uniform color. The description was drawn from the Dominica example.

The type of *nebulosus* was taken on beach sand; that of *cubensis* on soft mud; my examples were taken along streams.

3. THINOBIUS MIRICORNIS Cameron

Thinobius miricornis Cameron, 1913b, p. 324.—Leng and Mutchler, 1917, p. 198.—Scheerpeltz, 1933, p. 1127.

Description.—Pitch-black or pitch-brown, the pronotum and the base of the abdomen yellow. *Head* with the diameter of the eyes about equalling the length of the temples; sculpture close, rugulose. *Pronotum* more than one-half broader than long, almost semicircular; sculpture as on head. *Elytra* with fine rugulose sculpture. Length, 1.3 mm. (From Cameron.)

Type locality.—St. Vincent, Leeward side.

Types.—Holotype, male, and allotype, female, in the British Museum.

Records.—The following are the records known to me:

St. Vincent: (Cameron, 1913; British Museum; Cameron collection; Leng and Mutchler, 1917).

Grenada: (Cameron, 1913; British Museum; Cameron collection; Leng and Mutchler, 1917).

Specimens examined.—I have seen the two types and four others in the British Museum and two examples in Dr. Cameron's collection.

Remarks.—I have examined specimens of this species only briefly and cannot vouch for its characters. It appears to be distinguishable by the arrangement of color.

I find no record of its habits.

4. THINOBIUS JAMAICENSIS, new species

Description.—Dark rufocastaneous, pronotum testaceous. *Head* with the eyes separated from the constriction by less than their length; with coarse but dense granulose sculpture. *Pronotum* one-half wider than long, nearly semicircular; sculpture as on head. *Elytra* with inner apical angles rather narrowly rounded; with distinct punctures rather dense and somewhat obscured; without ground sculpture. Length, 1 mm.

Type locality.—Jamaica, roads between Bath and Lower White Horses, by way of Sunning Hill, Trinityville, and Cedar Hill.

Types.—Holotype, U.S.N.M. No. 52428, collected on February 28, 1937, by Chapin and Blackwelder.

Records.—The following is the only record known to me:

Jamaica: Trinityville (Blackwelder station 428).

Specimens examined.—I have seen only the unique type.

Remarks.—This is our most distinct species and was for a time confused with *Torrentomus tenebrosus* and also with *Oxytelus.* It agrees perfectly with the diagnosis of *Thinobius* and appears to be properly placed here in spite of its distinct facies.

The type was taken flying at dusk.

5. THINOBIUS EXASPERATUS, new species

Description.—Castaneous, the head and abdomen darker. *Head* with eyes separated by about half their length from base; with dense fine granulose sculpture. *Pronotum* with very fine and rather indistinct sculpture; about one-seventh wider than long, somewhat obtrapezoidal. *Elytra* with inner apical angles moderately rounded; with dense sculpture finer than on head but more distinct than on pronotum. Length, 1 mm.

Type locality.—Jamaica, roads between Bath and Lower White Horses, by way of Sunning Hill, Trinityville, and Cedar Hill.

Types.—Holotype and one paratype, U.S.N.M. No. 52534, collected on February 28, 1937, by Chapin and Blackwelder.

Records.—The following are the records known to me:

Jamaica: Trinityville (Blackwelder station 428), Spanish Town (Blackwelder station 377).
Hispaniola: DOMINICAN REPUBLIC, Villa Altagracia (Darlington, in M.C.Z.).
Montserrat: (Blackwelder station 265A).

Specimens examined.—I have seen two examples besides the types in the United States National Museum, and one in the Museum of Comparative Zoology.

Remarks.—These specimens appear to be distinct because of the narrow quadrate pronotum. Although I have been unable to separate the specimens, I have not felt justified in making them all paratypes.

My specimens were taken from under stones along streams and flying at dusk.

6. THINOBIUS NITIDULUS Bernhauer

Thinobius nitidulus BERNHAUER, 1905, p. 11.—BERNHAUER and SCHUBERT, 1911, p. 140.—LENG and MUTCHLER, 1914, p. 404.

Thinobius (s. str.) *piceus* CAMERON, 1923, p. 397.—SCHEERPELTZ, 1933, p. 1127.—BIERIG, 1934c, p. 216, 217.

Description.—Piceocastaneous, pronotum and elytra sometimes feebly rufescent. *Head* with eyes separated from base by about half their length; with very fine but very dense granulose sculpture. *Pronotum* about one-third wider than long, rectangular with the sides and base arcuate; with sculpture as on head. *Elytra* with inner apical angles moderately rounded; sculpture nearly as on pronotum. Length, 1 to 1½ mm.

Type locality.—Grenada, St. Johns River, Leeward side. Of *piceus*, Jamaica.

Types.—Presumably in the British Museum (see notes below); of *piceus*, in the collection of Dr. Cameron.

Records.—The following are the records known to me:

Cuba: Soledad (Darlington, in M.C.Z.), Rangel, Sierra del Rosario (Bierig, in Bierig collection, Cameron collection, and U.S.N.M., as *piceus*).

Jamaica: (Cameron, 1923; Scheerpeltz, 1933; Bierig, 1934; Cameron collection; as *piceus*), Gordon Town (Blackwelder station 2), Whitfield Hall, Blue Mountains (Darlington, in M.C.Z. and U.S.N.M.).

Puerto Rico: El Yunque (Darlington, in M.C.Z. and U.S.N.M.).

Grenada: (Bernhauer, 1905; Leng and Mutchler, 1914).

Specimens examined.—I have seen the presumed type in the British Museum, 13 examples (of *piceus*) in Dr. Cameron's collection, 5 from the Museum of Comparative Zoology, 1 in the United States National Museum, and 2 collected by me in 1935–37.

Remarks.—This species may be recognized by its broad rectangular pronotum and the characters used in the key. I find very little variation in these specimens. The description was drawn from a Jamaican example.

Although Dr. Bernhauer does not mention the British Museum or the location of the type of this species, it appears very likely that the example in that museum is the type. Dr. Bernhauer had no other source of H. H. Smith specimens and would not have been permitted to retain the holotype.

I find no record of the habits of this species, but my examples were found under stones along a stream.

XI. Genus PLATYSTETHUS Mannerheim

Platystethus MANNERHEIM, 1830, p. 46.

Platysthetus ERICHSON, 1839a, p. 585.

Pyctocraerus THOMSON, 1861, p. 125.

Genotype.—*Staphylinus morsitans* Paykull=*Oxytelus morsitans* (Paykull)=*Platystethus morsitans* (Paykull) (designated by Westwood, 1938). Of *Pyctocraerus*, *Staphylinus morsitans* Paykull=*Pyctocraerus morsitans* (Paykull) (original designation).

Diagnosis.—Body moderately elongate and depressed; antennae 11-segmented, not geniculate, outer segments transverse; without ocelli; clypeus not separated by a suture from the front; labrum transverse, emarginate; mentum and submentum transverse; maxillary palpi subulate; gular sutures united in front, more or less effaced; pronotum not longitudinally sulcate; anterior coxal cavities confluent, entirely open behind; trochantin exposed; front coxae large and prominent; middle coxae widely separated by a process of the metasternum; elytra dehiscent, sutural apical angles broadly rounded; posterior coxae contiguous, "transverse," not greatly expanded under the femora; abdomen strongly margined; sternum of first segment not sclerotized; anterior and middle tibiae strongly spinose externally in a single row; tarsi 3-segmented.

Remarks.—This genus is distinguished from *Oxytelus* (in addition to the rather unsatisfactory characters used in most keys) by the separation of the mesothoracic coxal cavities by the metasternum and by the dehiscent elytra. It is a world-wide genus, generally of wide specific distribution.

I have found only one species in the West Indies.

1. PLATYSTETHUS SPICULUS Erichson

Platystethus spiculus Erichson, 1840, p. 784.—Casey, 1886b, p. 262.—Sharp, 1887, pp. 687, 800.—Villada, 1901, p. 33.—Bernhauer and Schubert, 1911, p. 124.—Scheerpeltz, 1933, p. 1109.

Platystethus exiguus DuVal, 1857, p. 41, pl. 6, fig. 22.—Chevrolat and Fauvel, 1863, p. 438.—Bernhauer and Schubert, 1911, p. 123.—Leng and Mutchler, 1914, p. 404.

Description.—Piceous with pronotum and elytra sometimes rufescent, shining. *Head* subquadrate; antennae shorter than head and pronotum, outer segments feebly transverse; labrum three times as wide as long, emarginate, with membranous processes; mandibles moderately elongate, toothed; maxillary palpi rather long, subulate, fourth segment as long as third; gular sutures united near center, obsolete anteriorly or vaguely and unevenly impressed; with two anteriorly converging sulci simulating widely separated gular sutures. *Pronotum* two-fifths wider than long; semicircular; midline feebly impressed; very finely and very sparsely punctate; no ground sculpture. *Elytra* dehiscent, inner apical angles broadly rounded, outer ones narrowly rounded; moderately finely and sparsely punctate, surface finely rugulose, especially apically. *Abdomen* impunctate except at edges of segments. *Male*, head with three longitudinal sulci behind and between the eyes on each side; slightly elevated from the center of vertex to supraantennal prominences; postclypeus produced in two ensiform horns, generally as long at least as distance between them; gular sutures entirely obliterated in front of the point of union; eighth abdominal sternite with a large circular depression bordered apically by a short carinate ridge and an abrupt short incision of the margin. *Female*, head with only two sulci on each side, inner ones indefinite; vertex without ridges; clypeus without horns; eighth abdominal sternite feebly lobed at center. Length, 1½ to 2¼mm.

Type locality.—"Caracas in Columbia" (=Venezuela).

Types.—In either the Hope Museum, Oxford, or the Zoologische Museum, Berlin.

Records.—The following are the records known to me:

Cuba: (DuVal, 1857; Chevrolat and Fauvel, 1863; Leng and Mutchler, 1914, as *exiguus*).

Jamaica: Spanish Town (Blackwelder station 377), Milk River (Blackwelder station 415), Trinityville (Blackwelder station 428), Santa Cruz (Blackwelder station 421), Troy (Blackwelder station 409), Newport (Blackwelder station 412A).

Hispaniola: HAITI, Trouin (Blackwelder station 24B); DOMINICAN REPUBLIC, Moca (Blackwelder station 40), San José de las Matas (Blackwelder station 38), Puerto Plata (Blackwelder station 36), Santiago (Blackwelder stations 38, 40).

Puerto Rico: San Juan (Blackwelder stations 345, 353B), Humacao (Blackwelder station 54), Ponce (Dozier, in U.S.N.M.), Hormigueros (U.S.N.M.).

Antigua: (Blackwelder station 285B).

Guadeloupe: Basse Terre (Blackwelder stations 69, 75; A.M.N.H.).

Dominica: (Blackwelder stations 257B, 258).

St. Lucia: (Blackwelder stations 212, 228).

Barbados: (Blackwelder station 194).

St. Vincent: (Blackwelder stations 175, 179, 185; British Museum).

Grenadines: Carriacou (Blackwelder station 146).

Grenada: (British Museum).

(**Trinidad:** Port of Spain (Blackwelder station 115).)

South America: VENEZUELA (Erichson, 1840; Sharp, 1887), COLOMBIA (Casey, 1886), ARGENTINA (Scheerpeltz, 1933).

Central America: GUATEMALA, PANAMA, MEXICO (Sharp, 1887; U.S.N.M.), MEXICO (Casey, 1886; Villada, 1901; U.S.N.M.).

North America: TEXAS (Casey, 1886; U.S.N.M.).

Specimens examined.—Besides several series from Central America, I have examined 21 specimens from the West Indies in the British Museum, 6 in the American Museum of Natural History, 3 in the United States National Museum, and 57 collected by me in 1935–37.

Remarks.—Although I have seen no examples from Cuba, I am confident that *exiguus* DuVal is a synonym of *spiculus*. I am unable to separate my series from Jamaica to Trinidad from the *spiculus* Erichson as understood by Sharp from Central America.

The single example from Trinidad differs from all the others in having the gular sutures continued as a definite deeply impressed suture to the base of the labium. As there is a slight degree of variation in this character, and as I have only the one female from Trinidad, I think it is not worthy of specific segregation.

I have collected this species from dung and manure, in refuse from a lime press, flying at dusk, and flying to lights.

XII. Genus BLEDIUS Samouelle

Bledius SAMOUELLE, 1819, p. 174.
Subgenus *Hesperophilus* STEPHENS, 1829, p. 292.
  Blediodes MULSANT and REY, 1879, p. 134.
  Tadunus SCHIÖDTE, 1879, p. 147.
  Bargus SCHIÖDTE, 1879, p. 148.
Subgenus *Elbidus* MULSANT and REY, 1879, p. 130.
Subgenus *Astycops* MULSANT and REY, 1879, p. 195.
Subgenus *Pucerus* MULSANT and REY, 1879, p. 212.
Subgenus *Belidus* MULSANT and REY, 1879, p. 215.
Subgenus *Euceratobledius* ZNOJKO, 1929, p. 203.
Subgenus *Cotysops* TOTTENHAM, 1939, p. 225.

Genotypes.—*Staphylinus armatus* Panzer=*Oxytelus armatus* (Panzer)=*Bledius armatus* (Panzer) (original designation). Of *Hesperophilus*, *Staphylinus fracticornis* Paykull=*Bledius fracticornis* (Paykull) (designated by Westwood, 1838; the designation of *arenarius* Paykull by Thomson, 1859, is therefore invalid); of *Blediodes*, *Staphylinus fracticornis* Paykull=*Blediodes fracticornis* (Paykull) (designated by Tottenham, 1939); of *Tadunus*, *Staphylinus fracticornis* Paykull=*Tadunus fracticornis* (Paykull) (designated by Tottenham, 1939); of *Bargus*, *Bledius erraticus* Erichson=*Bargus erraticus* (Erichson) (designated here; the designation of *fracticornis* Paykull by Tottenham, 1939, is invalid since this was not one of the originally included species); of *Elbidus*, *Oxytelus bicornis* Ahrens=*Bledius* (*Elbidus*) *bicornis* (Ahrens) (monobasic); of *Astycops*, *Bledius* (*Astycops*) *subterraneus* Erichson (designated here; *talpa* Gyllenhal, designated by Thomson, 1859, is considered a synonym); of *Pucerus*, *Bledius* (*Pucerus*) *verres* Erichson (monobasic); of *Belidus*, *Bledius* (*Belidus*) *angustus* Mulsant and Rey (monobasic); of *Euceratobledius*, *Bledius* (*Euceratobledius*) *furcatus* (Olivier) (original designation); of *Cotysops*, *Staphylinus arenarius* Paykull=*Bledius* (*Cotysops*) *arenarius* (Paykull) (original designation).

Diagnosis.—Body more or less cylindrical; without ocelli; clypeus separated from vertex by a suture; labrum transverse; antennae strongly geniculate, 11-segmented; gular sutures united in front; submentum transverse; maxillary palpi subulate; prosternum prolonged beneath coxae, separating the cavities but not the coxae; coxal cavities nearly closed behind; coxae large, prominent; middle coxal cavities confluent; elytra dehiscent, sutural apical angles generally broadly rounded; abdomen margined; first sternite not present; posterior coxae contiguous, not at all expanded under the femora; front tibia with two rows of spines; tarsi 3-segmented.

Remarks.—This genus is distinguished from *Oxytelus* by its geniculate antennae, its subcylindrical form, the semiclosure of the anterior coxal cavities, the union of the middle coxal cavities, and the dehiscent elytra.

I have examined 79 specimens of this genus, belonging to 8 species, of which 7 appear to be new.

KEY TO WEST INDIAN SPECIES OF BLEDIUS

1. Pronotum with an impressed median line ---------- 3
  Median line not impressed ---------- 2
2. Anterior angles of pronotum prolonged ---------- 1. caribbeanus
  Anterior angles of pronotum not at all prolonged ---------- 2. esposus
3. Head armed with four short spines; pronotum prolonged in a spine of nearly half its length ---------- 8. ceratus
  Head and pronotum not so armed ---------- 4
4. Length 2 mm. or less ---------- 5
  Length 4 mm. or more ---------- 7. beattyi
5. Pronotum with more or less distinct scaly ground sculpture ---------- 6
  Pronotum without scaly ground sculpture ---------- 3. withycombei
6. Outer apical half of elytra diffuse testaceous ---------- 7
  Elytra unicolorous, rufous ---------- 4. cubensis
7. Vertex with a deep fovea at middle ---------- 5. trinidadensis
  Vertex with at most a shallow fovea ---------- 6. jamaicensis

1. BLEDIUS CARIBBEANUS, new species

Description.—Body black throughout. *Head* moderately convex above, very feebly longitudinally depressed on each side; supra-antennal ridges scarcely distinguishable; impunctate, but with very dense tuberculate sculpture; antennal segments from 7 to 10 transverse; labrum short, broadly emarginate in front and nearly divided into two. *Pronotum* three-fourths wider than long, semicircular; midline vaguely indicated at apex only; impunctate but with dense finely tuberculate sculpture. *Elytra* dehiscent; broadly rounded internally but less rounded externally; impunctate but with tuberculate sculpture as on pronotum. *Abdomen* irregularly sculptured but shining. Length, 1½ to 2 mm.

Type locality.—Tobago, seashore 3 miles southwest of Scarborough.

Types.—Holotype and eight paratypes, U.S.N.M. No. 52372, holotype collected by me on January 1, 1936. The paratypes were taken at the localities listed below. One paratype has been deposited in the collection of Dr. M. Cameron.

Records.—The following are the records known to me:

Hispaniola: Dominican Republic, Barahona (Darlington, in M.C.Z.).
Montserrat: (Blackwelder station 267A).
Guadeloupe: (Blackwelder station 77A).
Dominica: (Blackwelder station 240½D).
Grenada: (Blackwelder station 162A).
Tobago: (Blackwelder station 120).

Specimens examined.—I have seen only the nine types and one specimen in the Museum of Comparative Zoology.

Remarks.—The sculpture of this species is similar to that of *esposus.* This species is rather densely pubescent, the hairs appearing to be grayish white.

I have collected it under seaweed on the beach and on the muddy bank of a tidal lagoon.

2. BLEDIUS ESPOSUS, new species

Description.—Opaque black, apex of elytra indefinitely marked with testaceous. *Head* moderately convex above, feebly longitudinally depressed on each side; supraantennal ridges very feeble but somewhat elongate; surface with very dense scaly sculpture; antennal segments 5 to 10 transverse; labrum at least four times as wide as long, triangularly notched at middle, not rounded; third segment of maxillary palpi enlarged and flattened, fourth small. *Pronotum* one-third wider than long, broadly rounded at sides, slightly narrowed in front and strongly behind, posterior angles rounded; midline very narrowly unsculptured but not impressed; impunctate, but with dense fine scaly and tuberculate sculpture. *Elytra* dehiscent in apical two-fifths; broadly rounded at apex externally, a little more narrowly internally; with large irregular punctures separated by narrow convex ridges; ground sculpture present but indistinct because of the density of the punctation. *Abdomen* alone shining. Length, 2¾ mm.

Type locality.—Antigua, St. Johns.

Types.—Holotype, U.S.N.M. No. 52375, collected by me in September 1936.

Records.—The following is the only record known to me:

Antigua: (Blackwelder station 295).

Specimens examined.—I have seen only the unique type.

Remarks.—The sculpture of the head and pronotum is very distinctive though very fine. It consists of very minute but abruptly elevated and rounded tuberculi among the dense fine hairs. The punctures or sockets of the latter are invisible to me.

The type was taken flying about the hotel in town.

3. BLEDIUS WITHYCOMBEI Bernhauer

Bledius withycombei BERNHAUER, 1934, p. 157.

Description.—Head black, pronotum rufopiceous, elytra piceotestaceous with outer apical half luteous. *Head* convex above, without fovea or impressions; supraantennal ridges rather feeble; antennae not at all transverse; labrum over twice as wide as long, anterior margin straight; third segment of maxillary palpus enlarged and flattened, fourth very small; surface with rather feeble dense scaly sculpture. *Pronotum* one-sixth wider than long, subsemicircular but with traces of lateral and basal angles; midline finely channeled; with very large but very shallow and rather indefinite punctures, separated by about their diameter; surface uneven but not distinctly sculptured except possibly in front. *Elytra* dehiscent, apex more broadly rounded internally than externally; with large and irregular but shallow and somewhat indefinite punctures; without ground sculpture. Length, 2 mm.

Type locality.—Trinidad, St. Augustine, county of St. George, ward of Tacarigua.

Types.—One example labeled type in the British Museum, collected on December 22, 1923, by C. L. Withycombe, and two others that though not so labeled are probably paratypes. Examples from the original series are also in the collection of Dr. Max Bernhauer.

Records.—The following is the only record known to me:

Trinidad: St. Augustine (Bernhauer, 1934; British Museum; Bernhauer collection).

Specimens examined.—I have seen only the three specimens in the original series. One of these was borrowed for further study.

Remarks.—This species is very similar to *trinidadensis* except in details of sculpture. I have not seen sufficient material to enable me to form a useful opinion on their true status, and I therefore include them both as valid species for the present.

I find no record of the habits of this species.

4. BLEDIUS CUBENSIS, new species

Description.—Rufopiceous, pronotum rufous, elytra piceotestaceous. *Head* moderately convex above, with a small indefinite fovea at center of vertex; supraantennal ridges rather abrupt but small; antennal segments 6 to 10 transverse; labrum nearly three times as wide as long, anterior margin straight; third segment of maxillary palpi enlarged and flattened, fourth small; surface with dense scaly sculpture. *Pronotum* nearly one-fourth wider than long; sides nearly straight in anterior two-thirds, feebly rounded posteriorly, angles rounded but base distinct; midline finely channeled; with rather large but shallow punctures generally separated by their diameter or less; with feeble scaly ground sculpture. *Elytra* broadly rounded at apex; with moderate but irregularly dense punctures; surface very uneven but without distinct ground sculpture on the disk. Length, 1¾ to 2 mm.

Type locality.—Cuba, Cayamas.

Types.—Holotype and 14 paratypes, U.S.N.M. No. 52374, collected by E. A. Schwarz in May of 1902, 1903, or 1904. One paratype has been deposited in the collection of Dr. M. Cameron and one in the British Museum.

Records.—The following is the only record known to me:

Cuba: Cayamas (Schwarz, in U.S.N.M.).

Specimens examined.—I have seen only the 17 types.

Remarks.—This species is a member of the complex that includes also *trinidadensis*, *withycombei*, and *jamaicensis*. They seem at present to be separable on characters of sculpture and color.

I have no record of the habits of this species.

5. BLEDIUS TRINIDADENSIS, new species

Bledius trinidadensis BERNHAUER, MS.

Description.—Piceous, pronotum rufopiceous, elytra piceotestaceous with outer apical half luteous. *Head* convex above, with an abrupt fovea on disk, supraantennal ridges small but prominent; antennal segments 5 to 10 transverse; labrum over twice as wide as long, anterior margin straight; third segment of maxillary palpus enlarged and flattened, fourth very small; surface with feeble but distinct scaly ground sculpture. *Pronotum* nearly one-fourth wider than long, subsemicircular; midline finely channeled; with very large but shallow punctures, generally separated by less than their diameter; with scaly ground sculpture feeble, almost obsolescent. *Elytra* dehiscent; apex broadly rounded; with moderately large, shallow punctures, irregular but seldom separated by their diameter; with only vague traces of ground sculpture. Length 2 mm.

Type locality.—Trinidad, St. Augustine, county of St. George, ward of Tacarigua.

Types.—Holotype and seven paratypes in the British Museum, collected on December 22, 1923, by C. L. Withycombe; five paratypes in the Museum of Comparative Zoology and five in the United States National Museum (No. 52535), collected at the type locality and near Tunapuna by Dr. P. J. Darlington and N. A. Weber.

Records.—The following is the only record known to me.

Trinidad: St. Augustine (British Museum; Darlington and Weber, in M.C.Z. and U.S.N.M.), foothills north of Tunapuna (Weber, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen 8 specimens in the British Museum and 10 from the Museum of Comparative Zoology.

Remarks.—The original series contains specimens collected on several days, but without records of their habits.

6. BLEDIUS JAMAICENSIS, new species

Description. — Piceous, pronotum rufopiceous, elytra piceotestaceous with outer apical half luteous. *Head* moderately convex above, with small fovea at center of vertex; supraantennal ridges rather feeble; antennal segments 7 to 10 transverse; labrum over twice as wide as long, feebly arcuate in front; third segment of maxillary palpus enlarged and flattened, fourth small; surface with uneven scaly ground sculpture. *Pronotum* three-tenths wider than long, polygonal, sides straight and parallel in anterior third thence straight to posterior angles, base divided into three parts; midline rather strongly channeled; with large and shallow but dense punctures; with scaly ground sculpture. *Elytra* scarcely visibly punctate because of the semirugose unevenness, punctures more distinct posteriorly; with trace of transverse ground sculpture; broadly rounded apically. Length, 1½ to 2 mm.

Type locality.—Jamaica, between Spanish Town and Kingston on main road.

Types.—Holotype and 20 paratypes, U.S.N.M. No. 52376, collected by Chapin and Blackwelder in February 1937. Paratypes from type locality and from those listed below. One paratype has been deposited in the collection of Dr. M. Cameron and one in the British Museum.

Records.—The following are the records known to me:

Cuba: Soledad (Weber, in M.C.Z. and U.S.N.M.).
Jamaica: Spanish Town (Blackwelder station 377), Santa Cruz (Blackwelder station 421), Trinityville (Blackwelder station 428), Troy (Blackwelder station 409).

Specimens examined.—I have seen only the 21 types and 3 examples collected by N. A. Weber.

Remarks.—This species is separated from the rest of its group only by the details of sculpture and color.

I have collected it only flying at dusk.

7. BLEDIUS BEATTYI, new species

Description.—Piceous, humeral band of elytra and apex of abdomen luteous. *Head* flattened above, without depressions except line between vertex and clypeus; clypeus convex, large; supraantennal ridges very strong; surface impunctate but with a few rounded tuberculi and coarse scaly sculpture; antennal segments 7 to 10 transverse; labrum more than twice as wide as long, subsemicircular, narrower than clypeus; third segment of maxillary palpi much enlarged, somewhat compressed, fourth small. *Pronotum* nearly one-eighth wider than long, sides parallel in anterior two-thirds, thence feebly rounded to base; midline rather coarsely channeled; surface impunctate but set with tiny rounded tuberculi throughout; ground sculpture rather feeble but coarsely scaly. *Elytra* dehiscent in apical fourth, rather narrowly rounded at both posterior angles; with very large shallow punctures separated by half their diameter or less, intervals flat. Length, 4¼ mm.

Type locality.—St. Croix, along a stream 1 mile northeast of Sprat Hill Estate.

Types.—Holotype, U.S.N.M. No. 52371, collected by me on October 31, 1936.

Records.—The following are the records known to me:

Vieques Island: (Leonard, in U.S.N.M.).
St. Croix: (Blackwelder station 315).

Specimens examined.—I have seen only the unique type and one other specimen.

Remarks.—I found the type of this distinct species while collecting with Harry Beatty of St. Croix and take pleasure in naming it in his honor.

Another specimen, which I associate with the type, was taken on Vieques Island on April 28, 1930, by Dr. M. D. Leonard. It differs only in lacking the definite posthumeral luteous stripe. The species is distinct from any that I know in having the punctures of the head and pronotum replaced by rounded tuberculi.

I collected the type under a stone at the edge of a small stream in the woods.

8. BLEDIUS CERATUS, new species

Description.—Testaceous, head and apex of abdomen piceous. *Head* flattened above with a very large and deep transverse depression behind the eyes, and an impressed line at front of eyes separating clypeus from vertex; on each side immediately above eyes with two erect horns, more than half as long as space separating the pairs; first segment of antennae nearly three times as long as second; surface not punctate but with coarse scaly sculpture; labrum nearly three times as wide as long, rounded in front; third segment of maxillary palpi enlarged but not noticeably flattened, fourth small. *Pronotum* parallel in apical two-thirds, thence rapidly narrowed to base but not arcuate; anterior margin prolonged at middle into a slender porrect horn fully one-half as long as disk; midline finely channeled; with regular and moderately coarse punctures obscured by the strong scaly ground sculpture. *Elytra* broadly rounded behind laterally, but more narrowly rounded at suture; with coarse regular punctures, rather dense, intervals convex; with no definite traces of ground sculpture. Length, 3 mm.

Type locality.—Haiti, Port-au-Prince.

Types.—Holotype, U.S.N.M. No. 52373, collected by W. A. Hoffman on November 1, 1934; three paratypes from Barahona, Dominican Republic, collected in September 1938 by Dr. P. J. Darlington.

Records.—The following are the records known to me:

Cuba: Boqueron, Oriente (Darlington, in M.C.Z.).
Hispaniola: HAITI, Port-au-Prince (Hoffman, in U.S.N.M.); DOMINICAN REPUBLIC, Barahona (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the four types and another example collected by Dr. Darlington.

Remarks.—The type is presumably a male because of the development of the cephalic and pronotal horns. No abdominal characters were observed to support this assumption.

The type was taken at night.

Subfamily OSORIINAE

The elevation of this group to the rank of subfamily was proposed in a previous paper[6] that resulted from this same study. At the same time several genera were transferred from the old tribe Piestini, where they were out of place, and united to form a part of the new subfamily. A very homogeneous group has resulted, but it is one that can be subdivided with ease on the basis of less fundamental characters.

This subfamily is distinguished by the complete absence of paratergites on the abdominal segments. While this situation is possibly not entirely unique in the Staphylinidae, it serves readily for recognition of the subfamily, both in the West Indies and elsewhere.

Thirteen genera are known to occur in the West Indies, two of them new. They belong to three tribes and eight subtribes.

KEY TO WEST INDIAN GENERA OF OSORIINAE

1. Anterior coxa conical, prominent, *and* with a transverse sulcus on anterior face -- (OSORIINI) -- 2
   Anterior coxa usually small, globose, never with a transverse sulcus ---- 5
2. Integuments above glabrous; anterior tibiae at most a little expanded and with a few moderate spinules -- 3
   Integuments with sparse pubescence or with tibiae greatly expanded and armed with many large spinules -- 4
3. Prosternal process abruptly elevated from prosternum; metasternum impunctate ---------------------------- XXIII. Holotrochus
   Prosternal process continuous with prosternum; metasternum generally punctate -- XXII. Neotrochus

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[6] Blackwelder, 1942, p. 78.

4. Antennae geniculate---------- **XXV. Osorius**
   Antennae not geniculate---------- **XXIV. Mimogonus**
5. Anterior coxal cavities closed behind-- (Leptochirini)-- **XXI. Leptochirus**
   Anterior coxal cavities open behind---------- (Lispinini)-- 6
6. Anterior coxae separated by a flat process of prosternum---------- 10
   Anterior coxae not separated (except sometimes narrowly under the coxae)---------- 7
7. Pronotum half as wide at base as apex---------- (Eleusii)--**XIX. Eleusis**
   Pronotum not so much narrowed at base---------- 8
8. Gular sutures widely divergent posteriorly---------- (Thoracophori)-- 9
   Gular sutures absent, united, or approximate throughout. (Paralispini)--**XX. Paralispinus**
9. Elytra costate---------- **XVIII. Thoracophorus**
   Elytra not costate---------- **XVII. Espeson**
10. Head narrowed to a neck behind----------(Caloceri)-- **XVI. Glyptoma**
   Head not forming a neck---------- 11
11. Pronotum not over half as wide at base as at apex---------- (Inopeplini)--**XV. Eleusinus**
   Pronotum much more than half as wide at base as at apex---------- (Lispini)-- 12
12. Abdominal sternites with diagonal strigae---------- **XIV. Lispinus**
   Abdominal sternites without diagonal strigae---------- **XIII. Pseudolispinodes**

XIII. Genus PSEUDOLISPINODES Bernhauer

Pseudolispinodes Bernhauer, 1926a, p. 258.

Genotype.—Holosus madurensis Bernhauer=*Pseudolispinodes madurensis* (Bernhauer) (designated by Blackwelder, 1942).

Diagnosis.—Body elongate, subdepressed, glabrous; head not forming a neck behind; gular sutures united or closely approximated, antennae 11-segmented, inserted under the anterior corners of the vertex near the eyes; mandibles not prominent; palpi moderately stout, fourth segment of maxillary conical; pronotum more or less narrowed behind, closely applied to the base of the elytra; prosternum spatulate between the coxae; the anterior coxal cavities open behind; anterior coxae usually small and globose, without a transverse sulcus on anterior face; posterior coxae "triangular"; abdomen not margined; sternites of first and second segments not present; sternites without diagonal strigae; tibiae unarmed; tarsi 5-segmented.

Remarks.—None of the species here included has been previously placed in this genus (except in Blackwelder, 1942), but all of them were considered to belong to *Lispinus.* There is a distinct difference in appearance between *Pseudolispinodes* and *Lispinus,* but they may be separated immediately on the presence or absence of the diagonal strigae on the abdominal sternites.

I have examined 236 examples from the West Indies and assign them to 9 species of which 6 appear to be new.

KEY TO WEST INDIAN SPECIES OF PSEUDOLISPINODES

1.	Elytron with one or more much larger isolated punctures	2
	Elytron without individual larger punctures	6
2.	Elytron with only one larger puncture	3
	Elytron with two or three larger punctures	5
3.	Elytron otherwise impunctate	4
	Elytron finely punctate	6. tenellus
4.	Disk of pronotum with two distinct foveae at based third	7. foveolus
	Disk of pronotum not foveate basally	8. nigrifrons
5.	Pronotum moderately coarsely punctate	3. impar
	Pronotum very finely and irregularly punctate	9. guadeloupae
6.	Pronotum with longitudinal sculpture	7
	Pronotum with scaly sculpture	8
7.	Elytra with longitudinal sculpture	1. morugae
	Elytra with scaly sculpture	2. reversus
8.	Pronotum with four larger punctures in a square on disk	5. danforthi
	Pronotum without square of larger punctures	4. irregularis

1. PSEUDOLISPINODES MORUGAE, new species

Description.—Rufotestaceous. *Head* narrowly truncate in front; the longitudinal impressions very feeble but not sharply separated from the margin; punctures moderately coarse, usually separated by three times their diameter; finely and confusedly strigulose. *Pronotum* one-third wider than long, rounded at sides and narrowed from anterior two-fifths; very feebly impressed at sides; disk somewhat depressed on each side of the midline; very coarsely punctate, the punctures elongate and more or less united longitudinally; very finely longitudinally strigulose. *Scutellum* with a few moderate punctures. *Elytron* with discal stria represented only by an unimpressed double series of punctures, occasionally rather crowded; sutural stria fine but impressed; coarsely and rather irregularly punctate, punctures slightly elongate and separated by one to three times their length; very finely longitudinally strigulose. *Abdominal sternites* without diagonal carinae at sides. Length, 2¾ mm.

Type locality.—Trinidad, Herrara Estate near Basse Terre on road from Princes Town to Moruga, Victoria County, ward of Moruga.

Types.—Holotype, male, U.S.N.M. No. 52362, collected by me on December 31, 1935; one paratype, male, same data.

Records.—The following are the records known to me:

Trinidad: Moruga (Blackwelder station 112A), St. Augustine (Weber, in M.C.Z. and U.S.N.M.), Aripo Valley (Weber, in M.C.Z.).

Specimens examined.—I have seen the two types in the United States National Museum and four examples from the Museum of Comparative Zoology.

Remarks.—I have not been able to determine with certainty whether this species has been previously described from South America. *Lispinus sobrinus* Fauvel is the only species listed from Venezuela that I have not seen, and *morugae* seems to be distinct from it by having the pronotum depressed on both sides of the midline, which is not canaliculate.

My specimens were taken from under bark of rotting logs of the immortelle tree; one of the others is recorded as having been found in a cave at 2,000 feet elevation.

2. PSEUDOLISPINODES REVERSUS, new species

Description.—Rufotestaceous, apical half of elytra piceous. *Head* narrowly truncate in front; longitudinal impressions moderate but scarcely attaining the margin; punctures moderately fine, separated by three to four times their diameter; sculpture fine but indistinctly scaly. *Pronotum* one-third wider than long; sides feebly rounded, distinctly emarginate before posterior angles; lateral impressions feeble but extending beyond middle; disk with a punctate basal depression on each side; midline not canaliculate; punctures coarse, separated by little more than their diameters, much less in the depressions; sculpture fine but longitudinal and only at edges feebly scaly. *Elytron* with sutural stria feebly impressed, discal series represented only by an irregularly double series of punctures; punctures irregular in size and spacing, not excavated behind; sculpture distinct and scaly, especially anteriorly. *Abdominal sternites* without diagonal carinae. Length, 2¾ mm.

Type locality.—Hispaniola. Constanza, Dominican Republic; elevation 3,000 to 4,000 feet.

Types.—Holotype, Museum of Comparative Zoology, collected in August 1938 by Dr. P. J. Darlington.

Records.—The following is the only record known to me:

Hispaniola: DOMINICAN REPUBLIC, Constanza (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the holotype.

Remarks.—This specimen appears to differ sufficiently from *irregularis* to be recognized as a species. The differences in each character are slight but taken together seem sufficient to establish it.

I have received no record of its habits.

3. PSEUDOLISPINODES IMPAR (Cameron)

Lispinus impar CAMERON, 1913b, p. 322.—LENG and MUTCHLER, 1917, p. 198.—SCHEERPELTZ, 1933, p. 1014.

Lispinus claviger CAMERON, 1913b, p. 321.—LENG and MUTCHLER, 1917, p. 198.—SCHEERPELTZ, 1933, p. 1013.

Description.—Rufopiceous to rufotestaceous. *Head* narrowly truncate in front; the longitudinal impressions very feeble but not abruptly separated from the margin; vertex with a pair of large punctures between the eyes anteriorly; punctation moderate, punctures somewhat irregular and separated by two to three times their diameter; with fine scaly ground sculpture. *Pronotum* one-third wider than long, strongly rounded at sides and narrowed posteriorly from middle; feebly impressed at sides basally; disk vaguely flattened or impressed on both sides of midline which is not canaliculate; moderately coarsely punctate; punctures not or only slightly elongate and generally separated by two or three times their diameter; very finely longitudinally stringulose. *Scutellum* with a few moderate punctures. *Elytron* without trace of discal stria, sutural stria impressed; rather finely punctate, punctures separated by three to four times their diameter; with two larger punctures placed diagonally on the disk, one at center and one at apical third near the suture; very finely longitudinally strigulose. *Abdominal sternites* without diagonal carinae. Length, 2½ to 3¼ mm.

Type locality.—St. Vincent, Leeward side (for both *impar* and *claviger*).

Types.—One specimen labeled type in the British Museum (for each name).

Records.—The following are the records known to me:

Cuba: (U.S.N.M.)

Jamaica: Montego Bay (A.M.N.H.), Spanish Town (Blackwelder station 377), Bath in St. Thomas (Blackwelder station 389B).

Hispaniola: HAITI, Ennery (Darlington, in M.C.Z.); DOMINICAN REPUBLIC, Santiago (Blackwelder station 32A).

Montserrat: (Hubbard, in U.S.N.M.).

St. Lucia: (Blackwelder stations 207B, 208B, 213, 220D, 220G, 220H, 226, 444D).

St. Vincent: (Cameron, 1913, as *impar* and as *claviger;* Leng and Mutchler, 1914, as both).

Trinidad: Caura Valley (Adamson, at Blackwelder station 444A), Aripo Valley (Weber, in M.C.Z. and U.S.N.M.), St. Augustine (Weber, in M.C.Z.).

Specimens examined.—I have examined the 2 types and 5 other specimens in the British Museum, 2 specimens in the collection of Dr. Cameron, 14 from the Museum of Comparative Zoology, 1 in the American Museum of Natural History, 36 in the United States National Museum, and 49 collected by me during 1935–37. Six other specimens found in the United States National Museum collection were intercepted by the Plant Quarantine inspectors at Philadelphia and Savannah in banana trash that was presumably from Cuba. There is some possibility of error in this record.

Remarks.—I am unable to separate the unique type of *Lispinus claviger* from a large series of *L. impar* Cameron. The latter is somewhat variable in color and punctation, and the types apparently came from the same locality.

Examples with the pronotum bi-impressed on the disk are very distinct from the ones that are merely flattened, but the series contains sufficient intermediates to indicate that they are all one species.

This species has been taken from under bark of cedar and other trees, flying at dusk, in a rotten branch of a large tree, in decaying banana stalks, in dung, in rotting cocoa pods, under chips on stumps of breadfruit tree, and in tunnels of *Diatraea* larvae in sugarcane.

4. PSEUDOLISPINODES IRREGULARIS, new species

Description.—Piceous to rufopiceous, pronotum and elytra generally a little more rufous. *Head* narrowly truncate in front; longitudinal impressions moderate and attaining the margin; punctures moderately fine, separated by two to three times their diameter; sculpture very fine but scaly. *Pronotum* a little less than one-third wider than long; sides feebly rounded, narrowed posteriorly from middle; lateral impressions moderate but coarsely punctate, extending beyond middle; disk with a basal depression on each side; midline not definitely canaliculate; punctures moderately coarse, separated by two to three times their diameter, much denser in depressions; sculpture fine, scaly. *Scutellum* with few or no large punctures, sculpture obsolescent apically. *Elytron* with sutural stria impressed, discal series represented only by a vague and irregular series of punctures; punctures irregular in size, generally excavated behind, rather sparse; sculpture rather indistinct but scaly. *Abdominal sternites* without diagonal carinae. Length, 2¾ to 3½ mm.

Type locality.—Jamaica, vicinity of Trinityville, parish of St. Thomas.

Types.—Holotype and six paratypes, U.S.N.M. No. 52363. One paratype deposited in the collection of Dr. Cameron. The type was collected by Chapin and Blackwelder, February 28, 1937. Paratypes from Cayamas, Cuba; Trinityville, Bath in St. Thomas, Spanish Town, and Balaclava, Jamaica.

Records.—The following are the records known to me:

Cuba: Cayamas (Schwarz, in U.S.N.M.), Soledad (Darlington, in M.C.Z.), Havana (Casey collection, in U.S.N.M.).

Jamaica: Trinityville (Blackwelder station 428), Bath in St. Thomas (Blackwelder station 426B), Balaclava (Blackwelder station 399B), Spanish Town (Blackwelder station 377).

Hispaniola: HAITI, Port-au-Prince (Audant, in U.S.N.M.).

Specimens examined.—The two examples from Cuba were in the United States National Museum, seven were taken in Jamaica by us in 1935–37, one was borrowed from the collection at the Service Technique in Haiti, and one is in the Museum of Comparative Zoology.

Remarks.—The example from Haiti is in rather poor condition but appears to be this species. Through the kindness of André Audant at the Service Technique this specimen will be retained in the United States National Museum.

This species has been collected under bark of the silk cotton tree, flying at dusk, by sweeping low herbage, and in trash on banana boats.

5. PSEUDOLISPINODES DANFORTHI, new species

Description.—Rufopiceous to rufotestaceous, pronotum and elytra paler. *Head* narrowly truncate in front, longitudinal impressions feeble and attaining the margin; punctures moderately coarse, separated by about three times their diameter, obsolescent in front; scaly sculpture fine and also obsolescent in front. *Pronotum* nearly one-third wider than long; sides feebly rounded, and narrowed posteriorly from middle; sides with a very feeble granulate impression basally; midline not impressed; punctures moderately coarse, generally separated by one to three times their diameter, and with four larger punctures arranged in a square in anterior two-thirds of disk; ground sculpture scaly, less distinct at the sides. *Scutellum* with a few punctures and distinct scaly sculpture. *Elytron* with sutural band elevated but sutural stria feebly impressed; without trace of discal stria; punctures moderately fine, separated by three to four times their diameter; sculpture exceedingly fine, rather indistinctly scaly. *Abdominal sternites* without diagonal carinae. Length, 2¼ to 3¼ mm.

Type locality.—Puerto Rico, College Farm 1 mile east of Mayagüez.

Types.—Holotype and eight paratypes, U.S.N.M. No. 52364, collected by me on January 6, 1937. One paratype has been deposited in the collection of Dr. M. Cameron and one in the British Museum.

Records.—The following are the records known to me:

Puerto Rico: Mayaguez (Blackwelder station 358B).
Guadeloupe: (A.M.N.H.).

Specimens examined.—Eleven specimens from the type locality have been examined as well as four others in the American Museum of Natural History.

Remarks.—I have named this species for the late Prof. Stuart T. Danforth, of the School of Agriculture of the University of Puerto Rico, who was of great assistance to me in the collection of this and other species in the western part of Puerto Rico.

These specimens were found under bark of rotting logs.

6. PSEUDOLISPINODES TENELLUS (Erichson)

Lispinus tenellus ERICHSON, 1840, p. 830.—LACORDAIRE, 1854, p. 126.—FAUVEL, 1863, pp. 443, 444; 1865, pp. 47, 57; 1868b, p. 75; 1878c, pp. 13, 15.—SHARP, 1887, pp. 720, 721.—FLEUTIAUX and SALLÉ, 1889, p. 382.—HAMILTON, 1895, pp. 328, 358.—SLOSSON, 1905, p. 69.—BERNHAUER and SCHUBERT, 1910, p. 23.—LENG and MUTCHLER, 1914, p. 403.—NOTMAN, 1920, p. 693.—SCHEERPELTZ, 1933, p. 1018.—BERNHAUER, 1933, p. 326.

Lispinus tenuis LECONTE, 1863, p. 60; 1877, p. 250.—FAUVEL, 1878, p. 15.—SCHWARZ, 1878, p. 442.—HENSHAW, 1881, p. 222.—BERNHAUER and SCHUBERT, 1910, p. 24.—NOTMAN, 1920, p. 693.—SCHEERPELTZ, 1933, p. 1018.

Lispinus flavipennis FAUVEL, 1865, pp. 47, 58; 1878, p. 15.—SHARP, 1887, pp. 721, 722.—BERNHAUER and SCHUBERT, 1910, p. 24.

Lispinus fauveli SHARP, 1887, pp. 720, 721 (not *Lispinus fauveli* (Sharp), 1876).—BERNHAUER and SCHUBERT, 1910, p. 22.—CAMERON, 1913, p. 322.—LENG and MUTCHLER, 1914, p. 403.—BERNHAUER, 1933, p. 326.

Description.—Black throughout to rufopiceous with pronotum and elytra rufotestaceous. *Head* narrowly truncate in front; the longitudinal impressions moderate and attaining the margin; punctures moderate, separated by two to three times their diameter, but somewhat obscured by the dense scaly sculpture. *Pronotum* one-fourth wider than long, strongly rounded at sides and narrowed posteriorly from middle; sides with only a trace of impression at base; disk even, sculpture obsolescent along midline; punctures moderately coarse, separated by one to two and one-half times their diameter, not elongate; with dense scaly ground sculpture. *Scutellum* with a few moderate punctures and dense scaly sculpture. *Elytron* finely punctate, punctures separated by two to six times their diameter; without trace of discal stria, sutural stria well impressed; with a single very large puncture at middle of disk; with dense scaly ground sculpture. *Abdominal sternites* without diagonal carinae. Length, 2 to 3 mm.

Type locality.—"Columbia et Americae meridionalis ins. St. Johannis et Puerto Rico." Of *fauveli*, Teapa, Mexico: of *tenuis*, "Southern States," U.S.A.; of *flavipennis*, "Caracas; Teapa, Mexico (Pilate)."

Types.—Presumably in either the Hope Museum, Oxford, or the Zoologische Museum, Berlin. Of *fauveli*, in the British Museum: of *tenuis*, in the Museum of Comparative Zoology: of *flavipennis*, presumably in the collection of Blanche Rancin, Caën, France.

Records.—The following are the records known to me:

Cuba: (Fauvel, 1863, 1865; Sharp, 1887; Leng and Mutchler, 1914, as *fauveli*), Cayamas (Schwarz, in U.S.N.M.; Casey collection), Habana (Casey collection).

Jamaica: (Cameron collection), Bath in St. Thomas (Blackwelder stations 389B, 392B, 426B).

Hispaniola: HAITI, Roche Croix (Darlington, in M.C.Z.).

Puerto Rico: (Erichson, 1840), El Yunque (Blackwelder station 347A).

St. John: (Erichson, 1840).
Guadeloupe: (Fleutiaux and Sallé, 1889; Leng and Mutchler, 1914, as *fauveli;* A.M.N.H.).
St. Vincent: (British Museum).
Grenada: (British Museum).
South America: COLOMBIA (Erichson, 1840; Fauvel, 1863, 1865; Sharp, 1887; etc.), VENEZUELA, COLOMBIA, DUTCH GUIANA, BRAZIL, ARGENTINA (Fauvel, 1878; Scheerpeltz, 1933), VENEZUELA (Fauvel, 1865, as *flavipennis*).
Central America: (Fauvel, 1863, 1865, 1868, 1878), COSTA RICA (Nevermann collection, in U.S.N.M.), GUATEMALA, MEXICO (U.S.N.M.), MEXICO (Sharp, as *fauveli*), MEXICO, BRITISH HONDURAS, GUATEMALA (Sharp, 1887, as *fauveli*), MEXICO (Fauvel, 1865, as *flavipennis*).
North America: FLORIDA, TEXAS, ARIZONA, GEORGIA, NORTH CAROLINA, WEST VIRGINIA, SOUTH CAROLINA, PENNSYLVANIA (Fauvel, 1878; LeConte, 1863, as *tenuis;* Hamilton, 1895; Slosson, 1905; U.S.N.M.).

Specimens examined.—From the West Indies I have seen 19 examples in the British Museum, 6 in the American Museum of Natural History, 1 in the Museum of Comparative Zoology, 14 in the United States National Museum, and 9 collected by me in 1935–37.

Remarks.—*L. fauveli* Sharp appears to be a synonym of *tenellus* Erichson as indicated above. The type of *fauveli* in the British Museum appears to be inseparable from a Cuban example in the Chevrolat collection (which was probably the basis for Fauvel's record). I can separate neither of these from my specimens from Cuba, Jamaica, and Puerto Rico. Erichson's series very likely contained more than one species, but until the type can be examined (or a lectotype or neotype chosen) I shall consider the West Indies species to be the true *tenellus* of Erichson. These specimens differ in no way from the original description, though it is not sufficiently detailed to enable me to distinguish this species definitely among those now before me.

L. flavipennis Fauvel and *L. tenuis* LeConte have been listed as synonyms of *L. tenellus* Erichson (or *fauveli* Sharp). Specimens of these species I have examined in various collections are the same as *tenellus.*

This species has been taken under bark of the silk cotton and other trees.

7. PSEUDOLISPINODES FOVEOLUS, new species

Description.—Piceorufous. *Head* narrowly truncate in front; longitudinal impressions feeble but not abruptly set off from margin; impunctuate, but with fine scaly sculpture. *Pronotum* one-third wider than long; sides moderately rounded, feebly emarginate posteriorly; lateral impressions obsolete; disk with two foveae at basal third; midline undifferentiated; impunctate; with scaly ground sculpture. *Scutellum* impunctate, with vague sculpture. *Elytron* with very narrow linear sutural area elevated, sutural stria feebly impressed at base;

no trace of discal stria; impunctate, except for a large but vague depressed puncture on the disk; sculpture very fine and feeble, but scaly, *Abdominal sternites* without diagonal carinae. Length, 2 mm.

Type locality.—Montserrat.

Types.—Holotype, U. S. N. M. No. 52365, collected on March 19, 1894, by H. G. Hubbard.

Records.—The following is the only record known to me:

Montserrat: (Hubbard, in U.S.N.M.).

Specimens examined.—I have seen only the unique type.

Remarks.—This specimen seems to be distinct from *P. nigrifrons*, which shows little variation in a considerable series.

In the (unpublished) diary of H. G. Hubbard for 1894 I find a passage that apparently refers to this specimen: "Under bark of red cedar . . . an *Eleusis* . . ."

8. PSEUDOLISPINODES NIGRIFRONS (Fauvel)

Lispinus nigrifrons FAUVEL, 1863, p. 444; 1865, p. 47, 59.—BERNHAUER AND SCHUBERT, 1910, p. 22.—CAMERON, 1913b, p. 321.—LENG and MUTCHLER, 1914, p. 403.
Lispinus sparsepunctatus CAMERON, 1923, p. 391.—SCHEERPELTZ, 1933, p. 1017.

Description.—Rufopiceous to rufotestaceous, pronotum generally a little paler. *Head* narrowly truncate anteriorly; with two very feeble depressions in front, not truly longitudinal but not sharply delimited anteriorly; punctures very fine, indistinct, separated by three to five times their diameter on the disk; with fine but distinct scaly ground sculpture throughout. *Pronotum* just less than one-fourth wider than long, feebly rounded at the sides, narrowed from middle; very finely indistinctly punctate; lateral depressions obsolescent; disk flattened, midline vaguely smoother; scaly sculpture very distinct. *Scutellum* impunctate, but sculpture as on pronotum. *Elytron* impunctate except for a single large puncture in center of disk; sutural stria feebly impressed; without trace of discal stria; sculpture feeble but scaly. *Abdominal sternites* without diagonal carinae. Length, 1½ to 2 mm.

Type locality.—Cuba. Of *sparsepunctatus*, "Haiti."

Types.—Two specimens on one card (from the Chevrolat collection) in the British Museum. The unique type of *sparsepunctatus* is in Dr. Cameron's collection.

Records.—The following are the records known to me:

Cuba: (Fauvel, 1863, 1865; Leng and Mutchler, 1914), Cayamas (Schwarz, in U.S.N.M.).
Hispaniola: HAITI (Cameron, 1923; Cameron collection, as *sparsepunctatus*).
Montserrat: (Hubbard, in U.S.N.M.).
Guadeloupe: (A.M.N.H.).
St. Lucia: (Blackwelder station 208B).

Specimens examined.—I have seen 2 cotypes in the British Museum, 1 in Dr. Cameron's collection, 1 example in the American Museum of

Natural History, 31 in the United States National Museum, and 1 collected by me in 1935–37.

Remarks.—The specimens from Montserrat and St. Lucia appear to be identical with the Cuban ones. I was unable to separate the type of *sparsepunctatus* from specimens that appear identical with the types of *nigrifrons.*

My specimen was taken from under bark of a log in the forest. The Schwarz specimens were taken under bark of a silk cotton tree.

9. PSEUDOLISPINODES GUADELOUPAE, new species

Description.—Rufotestaceous. *Head* narrowly truncate anteriorly; with two very feeble depressions in front, not truly longitudinal but not sharply delimited anteriorly; punctures very fine but irregularly spaced; without trace of ground sculpture. *Pronotum* nearly one-fourth wider than long; feebly rounded at sides, emarginate posteriorly; lateral depressions obsolescent; punctures as on head; without trace of ground sculpture. *Scutellum* smooth, shining. *Elytron* impunctate except for two or three large punctiform depressions in inner basal half; sutural stria distinctly impressed; without trace of discal stria; without trace of ground sculpture. *Abdominal sternites* without diagonal carinae. Length, 1¾ to 2 mm.

Type locality.—Guadeloupe, Gourbeyre.

Types.—Holotype and one paratype in the American Museum of Natural History, and one paratype in the United States National Museum (No. 52536).

Records.—The following is the only record known to me:

Guadeloupe: Gourbeyre (A.M.N.H. and U.S.N.M.).

Specimens examined.—I have seen only the three types.

Remarks.—This species is very distinct among all I have seen by its extremely depressed form, as well as by its smooth and shining integuments. The paratype in the United States National Museum has the head somewhat smashed.

These specimens were purchased from a French dealer in 1916 by the American Museum of Natural History.

XIV. Genus LISPINUS Erichson

Lispinus Erichson, 1840, p. 828.
Liopinus Kraatz, 1874, p. 290.

Genotype.—*L. attenuatus* Erichson (designated by Duponchel, 1841).

Diagnosis.—Body elongate, subdepressed, glabrous; head rounded and usually feebly margined in front; gula very narrow, sutures obsolete before the pits; antennae not so long as head and pronotum; mandibles unarmed, not prominent; palpi short and stout, fourth segment of maxillary much longer than third; pronotum more or less quadrate, closely applied to the base of the elytra; prosternum spatulate between the coxae; the front coxal cavities nearly closed by the lobes of the deflexed pronotum; anterior coxae globose or somewhat transverse, but not projecting; posterior coxae "transverse" (scarcely expanded under the femora); abdomen not margined; sternites of first and second segments not present; tibiae unarmed; tarsi 5-segmented.

Remarks.—This genus is characterized by the shape of the pronotum, the structure of the prosternum between the coxae, and the presence of strigae on the abdominal sternites.

The genus *Ancaeus* (or *Paralispinus*) was described by Fauvel and placed next to *Lispinus.* It has caused difficulty in that position to everyone who has had occasion to study the group. In the Fauna of British India Dr. Cameron wrote, "It is doubtful if this genus can be retained," and he has recently expressed the same opinion to me. When arranging the West Indian *Lispinus* I arrived at a similar conclusion and included the species of *Ancaeus* under *Lispinus.* Later when studying the genus *Holotrochus* I found specimens so strongly reminiscent of *Lispinus* that I was led to reexamine the latter. I found that all the species that might be assigned to *Ancaeus* have the anterior coxae prominent instead of globose and not separated by an elevated spatulate process of the prosternum but by a depressed and narrow one. Fauvel's description of *Ancaeus* and its only species gives no clue to these characters, but Sharp examined one of Fauvel's types and declared the genus to have prominent coxae. Assuming that this is true, then *Ancaeus* must be removed to the subtribe Paralispini, and our difficulties over the relationship of *Lispinus* and *Ancaeus* disappear.

I have studied 213 examples of the 8 West Indies species of this genus. Of this number I collected 49 during 1935–37.

KEY TO WEST INDIAN SPECIES OF LISPINUS

1. Lateral depressions of pronotum at least half as long as pronotum------ 2
   Lateral depressions of pronotum less than half as long as pronotum---- 6
2. Elytra with impressed discal stria or distinct rows of punctures------ 3
   Elytra at most with vague trace of discal stria------------------------ 5
3. Elytra with discal stria of a single punctate groove------------ 6. **striola**
   Elytra with discal stria of several punctate grooves------------------- 4
4. Discal stria of numerous short longitudinal bands of coalescent punctures-- 8. **boxi**
   Discal stria of two irregular rows of posteriorly excavated punctures. 7. **insularis**
5. Elytra very sparsely and moderately coarsely punctate-------- 4. **anguinus**
   Elytra with very large and very shallow punctures---------- 5. **attenuatus**
6. Pronotum finely punctate, more coarsely near base---------- 1. **laticollis**
   Pronotum with coarse punctures, slightly elongate---------------------- 7
7. Sculpture throughout feeble but scaly------------------------------ 3. **catena**
   Sculpture throughout feeble but definitely not scaly------------ 2. **aremicus**

1. LISPINUS LATICOLLIS Erichson

Lispinus laticollis Erichson, 1840, p. 828.—Lacordaire, 1854, p. 126.—DuVal, 1857, p. 45.—Fauvel, 1863, p. 442; 1865, pp. 46, 48, 49.—Sharp, 1887, p. 718.—Bernhauer and Schubert, 1910, p. 22.—Leng and Mutchler, 1914, p. 403.—Wolcott, 1924, p. 77; 1936, p. 196.

Description.—Translucent rufous throughout. *Head* narrowly truncate in front; without trace of longitudinal impressions; finely and very sparsely punctate; punctures generally separated by three to five times their diameter; linear ground sculpture obsolescent. *Pronotum* nearly one-half wider than long; sides feebly arcuate; a little narrower at apex; base and apex slightly emarginate; lateral depressions large but not abrupt, not extending to middle; midline very finely, rather indefinitely canaliculate; rather finely punctate, more coarsely near base; sculpture linear but very fine and feeble. *Scutellum* impunctate, vaguely sculptured. *Elytron* with sutural band elevated but sutural stria not impressed; discal stria represented by several indefinite rows of shallow punctures, extending only to middle; very sparsely and obsoletely punctured; sculpture feeble but distinctly scaly. *Abdominal sternites* with fine diagonal carinae at the sides. Length, 4 mm.

Type locality.—Cuba.

Types.—Presumably with either the Riekh collection in the Zoologische Museum, Marburg, or with the Erichson collection in the Zoologische Museum, Berlin.

Records.—The following are the records known to me:

Cuba: (Erichson, 1840; Lacordaire, 1854; Fauvel, 1863, 1865; Sharp, 1887; Leng and Mutchler, 1914; British Museum), Cayamas (Schwarz, in U.S.N.M.), Guantanamo (A.M.N.H.), Trinidad Mountains (M.C.Z.).
Puerto Rico: (Fauvel, 1863; Leng and Mutchler, 1914; Wolcott, 1924, 1936).
Central America: Panama (Sharp, 1887; British Museum).

Specimens examined.—I have seen three examples in the British Museum (one of these labeled "Type Guerin-Men."), three in the American Museum of Natural History, one in the Museum of Comparative Zoology, and one in the United States National Museum.

Remarks.—One of the Cuban examples in the British Museum was borrowed for further study. It does not differ noticeably from the Schwarz example in the United States National Museum.

One example of this species was found with termites.

2. LISPINUS AREMICUS, new species

Description.—Black, somewhat rufescent in front. *Head* rounded and narrowly truncate in front; with only a trace of impressions between the antennal ridges; punctures moderate but shallow, generally separated by their diameter or more; ground sculpture feeble, not distinctly scaly. *Pronotum* nearly one-fourth wider than long;

widest just before middle; sides arcuate except near base; lateral depressions deep and irregularly sculptured, but extending only to basal third; midline not canaliculate, but disk depressed just before base; punctures coarse, somewhat elongate, seldom uniting, frequently separated longitudinally by less than their length; ground sculpture feeble but not distinctly scaly. *Elytron* with sutural stria impressed; discal stria not impressed but marked by denser punctures sometimes united in short rows; punctures of disk large, elongate, and excavated behind; ground sculpture feeble but not distinctly scaly. *Abdominal sternites* with fine diagonal carinae at sides. Length, 4¼ mm.

Type locality.—Trinidad, Arima-Paria road.

Types.—Holotype, Museum of Comparative Zoology, collected by Dr. P. J. Darlington.

Records.—The following is the only record known to me:

Trinidad: Arima (M.C.Z.).

Specimens examined.—I have seen only the holotype.

Remarks.—This species is similar in most respects to *insularis* but differs markedly in the extent of the pronotal depressions. *L. insularis* has not yet been found in Trinidad, although it may be expected there.

I have received no record of the habits of this species.

3. LISPINUS CATENA Sharp

Lispinus catena SHARP, 1876, p. 412; 1887, p. 719.—BERNHAUER and SCHUBERT, 1910, p. 21.

Description.—Rufopiceous. *Head* narrowly emarginate in front; without longitudinal impressions, but with a pair of large umbilicate punctures between the eyes; surface punctures coarse, separated by once to twice their diameter; sculpture very feeble but scaly. *Pronotum* one-fourth wider than long, sides feebly arcuate, narrowed from anterior fourth to base, not emarginate posteriorly; lateral depressions feeble, not attaining middle; midline vaguely canaliculate; punctures coarse, slightly elongate, separated by about their length, denser at base; ground sculpture feeble, vaguely scaly. *Scutellum* with a few punctures and scaly sculpture. *Elytron* with sutural stria impressed, discal stria marked only by slightly linear and denser punctures, which may be vaguely impressed in rows; punctures on disk moderately coarse, slightly elongate, separated by once to twice their width or length; sculpture scaly though not very distinct. *Abdominal sternites* with fine diagonal carinae at the sides. Length, 7 mm.

Type locality.—"Ega," Amazon Valley (Brazil).

Types.—A specimen in a glass-covered mount in the British Museum is labeled type.

Records.—The following are the records known to me:

Trinidad: Port of Spain (Blackwelder station 109B).
South America: BRAZIL (type; Sharp, 1876; 1887).
Central America: NICARAGUA (Sharp, 1887; British Museum).

Specimens examined.—Eight examples, including the type, from Central and South America in the British Museum, and one example taken by me in Trinidad in 1935–37.

Remarks.—My examination of the type of this species was hampered by the way it is mounted under glass. I believe my single specimen to be properly associated with this name, though the other specimens in the Sharp series may be distinct. They were labeled "var." by Sharp.

My single example was taken from under bark of a large log of the immortelle tree in company with numerous specimens of *L. striola.* It seems to be amply distinct by characters that do not vary in a large series of the latter species.

4. LISPINUS ANGUINUS Fauvel

Lispinus anguinus FAUVEL, 1865, pp. 44, 47, 54.—SHARP, 1887, p. 720.—BERNHAUER and SCHUBERT, 1910, p. 21.—LENG and MUTCHLER, 1914, p. 403.—SCHEERPELTZ, 1933, p. 1012.

Description.—Rufopiceous. *Head* narrowly truncate at front, with the feeble longitudinal impressions in front not sharply separated from the margin; punctation moderately coarse, but irregularly sparse; anteriorly separated by as much as six or eight times their width; finely but distinctly strigulose. *Pronotum* one-seventh wider than long, narrowed posteriorly from middle; strongly impressed at sides as far as anterior third; coarsely and rather sparsely but shallowly punctate, the punctures slightly elongate and at times coalescent longitudinally; a fine but distinctly impressed midline in basal half; finely longitudinally strigulose. *Scutellum* with a few moderate punctures. *Elytron* with a vague impression in place of the discal stria; very sparsely but moderately coarsely punctate; strigulae uniting to form a pseudoscaly sculpture; sutural margin narrowly elevated, but sutural stria obsolete. *Abdominal sternites* with fine diagonal carinae at sides. Length, 3½ mm.

Type locality.—"Santo Domingo" (=Dominican Republic).

Types.—In the British Museum, from the Chevrolat collection.

Records.—The following are the records known to me:

Jamaica: (Collection of Dr. M. Cameron), Cinchona (A.M.N.H.).
Hispaniola: (Fauvel, 1865; Sharp, 1887; British Museum; Leng and Mutchler, 1914); HAITI, Roche Croix (Darlington, in M.C.Z. and U.S.N.M.), Diquini (Mann, in M.C.Z. and U.S.N.M.), Mount Basil (Darlington, in M.C.Z. and U.S.N.M.); DOMINICAN REPUBLIC, Mount Diego de Ocampo (Darlington in M.C.Z. and U.S.N.M.), Sánchez (Darlington, in M.C.Z.)
[**South America:** ARGENTINA (Scheerpeltz, 1933).]
[**Central America:** MEXICO (Fauvel, 1865; Sharp, 1887).]

Specimens examined.—Three examples were examined in the British Museum, 7 in Dr. Cameron's collection, 14 in the American Museum of Natural History, and 10 from the Museum of Comparative Zoology.

Remarks.—The above description was taken from a specimen in the Sharp collection, borrowed from the British Museum. The specimens from the Museum of Comparative Zoology differ from the above description in having the pronotum and elytra with distinctly scaly ground sculpture. This is probably the usual condition.

Two specimens in the British Museum and one in my collection, taken by Dr. H. E. Box in Argentina, were identified as this species by Bruch but are not the same. The Mexico record still rests entirely on Fauvel's original citation.

I find no record of the habits of this species.

5. LISPINUS ATTENUATUS Erichson

Lispinus attenuatus ERICHSON, 1840, p. 828.—DUPONCHEL, 1841, p. 57.—LACORDAIRE, 1854, p. 126.—DUVAL, 1857, p. 46.—FAUVEL, 1865, pp. 48, 49, 55.—BERNHAUER and SCHUBERT, 1910, p. 21.—LENG and MUTCHLER, 1914, p. 403.—WOLCOTT, 1924, p. 77; 1936, p. 196.

Description.—Rufotestaceous to piceous with head rufescent. *Head* evenly rounded in front; with very shallow impressions, which are nearly circular and widely separated from the margin; moderately finely punctate; punctures separated by two to four times their diameter: ground sculpture linear but obsolescent. *Pronotum* fully one-fourth wider than long; sides feebly arcuate, a little narrowed at apex; rather abruptly impressed at basal angles, impression extending to middle; midline very feebly canaliculate; punctures coarse, decidedly elongate, frequently coalescent (especially in the lateral depressions), generally separated transversely by twice their width, shallow; sculpture linear but very feeble. *Scutellum* with a few irregular-sized punctures only. *Elytron* with narrow sutural band elevated, sutural stria impressed only at base; no discal stria; punctures very large and very shallow, generally not elongate though sometimes coalescent, separated transversely by their width or less; sculpture obsolescent but vaguely scaly. *Abdominal sternites* with fine diagonal carinae at sides. Length, 5 to 6 mm.

Type locality.—Puerto Rico.

Types.—Possibly in the Zoologische Museum, Berlin.

Records.—The following are the records known to me:

Puerto Rico: (Erichson, 1840; Lacordaire, 1854; Fauvel, 1865; Leng and Mutchler, 1914; Wolcott, 1924, 1936), El Yunque (Darlington, in M.C.Z.), Mayagüez (Blackwelder station 358B).

Guadeloupe: Basse Terre (Blackwelder station 72B).

Trinidad: Sangre Grande (Blackwelder station 96).

Specimens examined.—I have seen 1 specimen in the Museum of Comparative Zoology and 30 collected by me in 1935–37.

Remarks.—This is the first additional record for this species since its description. There is very little variation among my 10 examples. I collected this species in fungus and under bark of logs of mora and other trees.

6. LISPINUS STRIOLA Erichson

Lispinus striola ERICHSON, 1840, p. 829.—LACORDAIRE, 1854, p. 126.—DUVAL, 1857, p. 46.—FAUVEL, 1863, p. 442; 1865, pp. 46, 50.—SHARP, 1876, pp. 412, 413, 414; 1887, p. 719.—BERNHAUER and SCHUBERT, 1910, p. 23.—LENG and MUTCHLER, 1914, p. 403.

Description.—Piceous with head and pronotum slightly rufescent to entirely rufotestaceous. *Head* narrowly truncate in front; without longitudinal impressions; punctures coarse, separated by one-half to twice their diameter; sculpture linear, very feeble. *Pronotum* one-fifth wider than long; sides very feebly rounded, narrowed from anterior third but not strongly so; lateral depressions moderate, extending past middle; very coarsely punctate, more densely at base; punctures generally elongated, sometimes coalescing longitudinally, with exceedingly fine punctualae on interstices; ground sculpture longitudinal but obsolescent. *Scutellum* with a few large punctures and vague sculpture. *Elytron* with sutural stria impressed, discal stria a very distinct abruptly impressed groove, sometimes interrupted, expanded apically, or with additional short grooves apically; punctured and sculptured similarly to pronotum. *Abdominal sternites* with fine diagonal carinae at the sides. Length, 3½ to 5 mm.

Type locality.—"Colombia et Americae meridionalis insulis."

Types.—Presumably in the Zoologische Museum, Berlin. (A specimen labeled "Type Guerin Men." is in the British Museum.)

Records.—The following are the records known to me:

Antilles: (Erichson, 1840; DuVal, 1857).
Cuba: DuVal, 1857; Fauvel, 1863, 1865; Sharp, 1887; British Museum; Leng and Mutchler, 1914), Cayamas (Schwarz, in U.S.N.M.).
Trinidad: Port of Spain (Blackwelder stations 109B, 115).
South America: BRAZIL (Fauvel, 1863, 1865; Sharp, 1876, 1887), COLOMBIA (Erichson, 1840; Lacordaire, 1854; DuVal, 1857; Fauvel, 1863; Sharp, 1887).
Central America: NICARAGUA (Sharp, 1887), GUATEMALA (Sharp, 1887), BRITISH HONDURAS (Sharp, 1887), MEXICO (Fauvel, 1863, 1865; Sharp, 1887).

Specimens examined.—Twenty examples in the United States National Museum, 4 from the West Indies in the British Museum with a large series from Central and South America, and 17 collected by me in 1935–37.

Remarks.—The punctation of this species varies somewhat, but the large series studied seems to be properly identified with Erichson's name.

If future collecting does not record this species from the other islands, it will be an interesting case of an apparent invasion from the two ends of the chain. This distribution is almost unique among West Indian staphylinids.

My specimens were taken under bark of an immortelle log and flying at dusk.

7. LISPINUS INSULARIS Fauvel

Lispinus insularis FAUVEL, 1863, p. 442; 1865, pp. 47, 52, 53; 1878, p. 13.—SHARP, 1887, p. 720.—FLEUTIAUX and SALLÉ, 1889, p. 382.—BERNHAUER and SCHUBERT, 1910, p. 22.—LENG and MUTCHLER, 1914, p. 403; 1917, p. 198.—BERNHAUER, 1929, p. 187.

Lispinus granadensis FAUVEL, 1865, pp. 47, 52.—SHARP, 1887, p. 719, 720.—BERNHAUER and SCHUBERT, 1910, p. 22.—LENG and MUTCHLER, 1914, p. 403.

Description.—Rufopiceous. *Head* narrowly truncate in front; without impressions but with a pair of large umbilicate punctures between the eyes; surface punctures moderately coarse, separated by one and one-half to two times their diameter; ground sculpture feeble but not scaly. *Pronotum* fully one-fourth wider than long; sides slightly arcuate but narrowed from apex to base; lateral depressions deep and coarsely sculptured, extending past middle; midline not canaliculate; punctures very large, slightly elongate, sometimes coalescing longitudinally near base, frequently separated longitudinally by less than their length; ground sculpture feeble but not scaly. *Scutellum* with a few strong punctures and obsolete sculpture. *Elytron* with sutural stria impressed; discal stria not impressed but marked by two irregular rows of posteriorly excavated punctures; punctures of disk moderate, somewhat excavated behind, separated by one to four times their diameter; linear sculpture stronger than on pronotum. *Abdominal sternites* with fine diagonal carinae at sides. Length, 3 to 3¾ mm.

Type locality.—"Santo Domingo" (= Dominican Republic). The type locality of *L. granadensis* is Grenada, Nicaragua.

Types.—One example labeled type in the Chevrolat collection in the British Museum. The type of *granadensis* is in the same museum.

Records.—The following are the records known to me:

Cuba: (Fauvel, 1863, 1865; Sharp, 1887; Leng and Mutchler, 1914, as both; Bierig collection).

Hispaniola: (Leng and Mutchler, 1914, as both), HAITI, Grande Rivière (Mann, in M.C.Z. and U.S.N.M.); DOMINICAN REPUBLIC (Fauvel, 1863, 1865; Sharp, 1887).

Puerto Rico: Fajardo (Busck, in U.S.N.M.).

Montserrat: (Hubbard, in U.S.N.M.).

Guadeloupe: (Fleutiaux and Sallé, 1889; Leng and Mutchler, 1917).

Dominica: (A.M.N.H.).

St. Vincent: (Bernhauer and Schubert, 1910; British Museum).

Grenada: (Bernhauer and Schubert, 1910, as both; British Museum).

Central America: NICARAGUA (Fauvel, 1865, as *granadensis;* Sharp, 1887, as *granadensis*), GUATEMALA (Sharp, 1887, as both; U.S.N.M.), MEXICO (Fauvel, 1865; Sharp, 1887, as both; U.S.N.M.).

Specimens examined.—I have seen the 2 types and 38 others in the British Museum, 7 in the collection of Dr. Cameron, 24 in the American Museum of Natural History, 2 from the Museum of Comparative Zoology, and 25 in the United States National Museum.

Remarks.—The type of *L. insularis* was placed in the British Museum under *L. granadensis*, as a synonym, but the former name has priority. Sharp considered *insularis* to be a variety of *granadensis* but remarked that he had only one Central American example of the former although the latter was the commonest Central American *Lispinus*. The punctation varies somewhat in density and elongation, but I am unable to separate the two.

I have not collected this species and find no record of its habits.

8. LISPINUS BOXI, new species

Description.—Piceous. *Head* narrowly truncate in front; without impressions but with a pair of very large umbilicate punctures between the eyes; surface punctures moderately coarse, separated by one to two times their diameter; ground sculpture obsolescent, not scaly. *Pronotum* nearly one-fourth wider than long; narrowed from apex to base, sides nearly straight, not emarginate posteriorly; lateral impressions sulciform, densely punctate, extending past middle; disk without depressions, midline feebly canaliculate at basal third; punctures moderately coarse, elongate, frequently united in short longitudinal rows, separated transversely by one to three times their width; sculpture obsolescent but linear. *Scutellum* with a few large punctures and obsolete sculpture. *Elytron* with sutural stria impressed; discal stria feebly impressed, with numerous short longitudinal bands of coalescent punctures; disk with moderate but strongly elongate punctures, separated transversely by twice their width and longitudinally by one to two times their length; ground sculpture obsolescent but linear. *Abdominal sternites* with fine diagonal carinae at sides. Length, 4 mm.

Type locality.—St. Lucia, upper Roseau Valley, 1 mile south of bridge over Millette River just above its junction with the Roseau River. Elevation 750 feet.

Types.—Holotype, U.S.N.M. No. 52361, collected by me on March 29, 1936.

Records.—The following is the only record known to me:

St. Lucia: (Blackwelder station 208B).

Specimens examined.—The type is the only example I have seen.

Remarks.—This specimen was found under bark of a rotten log in the forest in company with two examples of *Pseudolispinodes impar*, one of *P. nigrifrons*, and three of *Paralispinus politus*, none of which it resembles. I collected at this locality as the guest of Dr. H. E. Box, at that time entomologist of the Colonial Development Fund, to whom I am indebted for many favors and to whom I dedicate this species.

XV. Genus INOPEPLUS Smith [6a]

Diagnosis.—Body broad, strongly depressed, alate; head transverse, abruptly declivous in front to the clypeus; labrum one-third as wide as head, truncate in front, without appendages; antennae filiform, longer than head and pronotum, segments obconic, the first large and somewhat geniculate; mandibles without teeth but more or less bifid at tip; maxillary palpus filiform, second and third segments equal, fourth equal to second and third together; labium beyond submentum membranous, parts not distinguishable in my specimens, palpi short, stout; submental sutures united, mentum short but broad, rectangular; gular sutures obsolescent, converging anteriorly to middle where they disappear, still separate; pronotum transverse, narrowed behind, edges laterally interrupted by one or two circummarginal ridges; prosternum short, coxae posterior, small, globose, cavities separated by a broad process of the sternum, widely open behind; elytra longer than the mesosterna and metasterna, smooth; middle coxal cavities separated by a broad process of the mesosternum; posterior coxae distinctly separated, broadly expanded under the femora; abdominal segments apparently with paratergites but these not upturned to form a margin, connate with tergites and sternites; sternites of first and second segments not present; femora and tibiae not dentate or strongly spinose except at tip of latter; tarsi 5-segmented, fifth tarsomere as long as the four preceding together.

Remarks.—This genus will run in most keys to *Lispinus* (or *Aneaeus*) but is much more like *Eleusis* in appearance. It differs widely from *Eleusis*, however, in important structural features and apparently is not related to it at all closely.

Because of the structure of the prosternum, which has a process between the coxae, this genus should be placed near *Lispinus*. From that genus it is distinguished by its unique flattened appearance, the depression between the vertex and the clypeus, the long antennae, the transverse pronotum with its circummarginal pockets, and numerous other details. Because of these features I believe that this genus must be made the basis for a separate subtribe, which should come between the Lispini and the Caloceri.

I have seen 14 specimens belonging to 4 new species.

[6a] See p. 624 for supplemental discussion of this genus.

KEY TO WEST INDIAN SPECIES OF INOPEPLUS

1. Head with dense scaly ground sculpture________________________________ 2
   Head at most with traces of scaly ground sculpture (except on clypeus)__ 3
2. Head posteriorly with distinct diagonal striations on each side__ 4. **striatulus**
   Head posteriorly without distinct striations___________________ 3. **assistans**
3. Sides of pronotum strongly interrupted in view from above____ 2. **mutchleri**
   Sides of pronotum only feebly interrupted from above__________ 1. **wolcotti**

1. INOPEPLUS WOLCOTTI, new species

Description.—Pale rufotestaceous. *Head* arcuately narrowed behind the eyes; moderately coarsely but shallowly punctate; punctures separated by once to twice their diameter; surface slightly uneven but without ground sculpture except on the clypeus; midline feebly but distinctly impressed through most of its length. *Pronotum* slightly narrower than head behind the eyes, a little more than one-fourth wider than long; base a little less than one-half as wide as apex; sides only feebly interrupted at basal and apical third by impressions of the margin, the impressions marked posteriorly by a circummarginal ridge but not actually excavated as a pocket; midline very finely and a little irregularly channeled; punctures rather coarse and irregular, frequently separated by less than their diameter; without ground sculpture. *Elytra* narrower at base than pronotum but fully one-half wider at apex than at base; impunctate (except vaguely at sides) and without ground sculpture; extending about one-third their length beyond metasternum. *Abdomen* above impunctate. Length, 3 mm.

Type locality.—Haiti, Aquin, on the south coast of the southwest peninsula.

Types.—Holotype, female, U.S.N.M. No. 52360, collected by G. N. Wolcott in March 1927.

Records.—The following is the only record known to me:

Hispaniola: HAITI: Aquin (Wolcott, in U.S.N.M.).

Specimens examined.—I have seen only the unique type.

Remarks.—This specimen is complete although somewhat collapsed. The elytra may be slightly infuscate apically, though this seems to be due to transparency. The specimen was borrowed from the Service Technique in Haiti and is retained in the United States National Museum collections through the kindness of André Audant.

I have no record of the habits of this species.

2. INOPEPLUS MUTCHLERI, new species

Description.—Flavous, head slightly rufescent, apical half of elytra cinnamomeous except for the margins. *Head* moderately punctate, punctures usually separated by less than their diameter; with traces of ground sculpture in feeble median depressions; sides behind eyes straight but strongly converging. *Pronotum* about as wide as head behind eyes, one-fifth wider than long; base three-sevenths as wide as apex, sides interrupted by two large pocketlike folds of the margin, equally prominent; punctures coarse but irregular, separated by one-half to two times their diameter; without ground sculpture. *Elytra* at base as wide as pronotum, one-half wider at apical fourth; humeral angles finely tuberculate; not distinctly punctate, but with large and shallow but vague depressions; surface uneven but without ground sculpture; extending for nearly one-third their length beyond the metasternum. *Abdomen* not distinctly punctate but with vague ground sculpture. Length, 2 mm.

Type locality.—Guadeloupe, Gourbeyre.

Types.—Holotype, American Museum of Natural History.

Records.—The following is the only record known to me:

Guadeloupe: Gourbeyre (A.M.N.H., Acc. No. 4860).

Specimens examined.—I have seen only the unique holotype.

Remarks.—This species may be distinguished from *wolcotti* by the feeble interruptions of the thoracic margins and from *assistans* and *striatulus* by the lack of strong ground sculpture on the head.

I have no record of its habits. It was purchased by the American Museum of Natural History from a French dealer in 1916.

3. INOPEPLUS ASSISTANS, new species

Description.—Flavous, apical half of elytra cinnamomeous except for the margins. *Head* moderately coarsely punctate, punctures usually separated by their diameter; ground sculpture minute and scaly, more distinct anteriorly; midline very vaguely and feebly impressed at middle; sides behind eyes nearly straight but strongly narrowed. *Pronotum* just equal in width to head behind the eyes, a little more than one-fourth wider than long; base one-half as wide as apex; sides interrupted twice by large pocketlike folds of the margin; punctures coarse but not deep, separated by one to two times their diameter; smooth, without ground sculpture. *Elytra* at base about as wide as pronotum; humeral angles finely tuberculate; nearly one-half wider at apical fourth; not distinctly punctate, but with large and shallow but vague depressions (more punctiform posteriorly); surface uneven but without ground sculpture; extending for at least one-third their length beyond the metasternum. *Abdomen* above finely but sparsely punctate, vaguely strigulose in part. Length, 2¾ mm.

Type locality.—St. Lucia, DuBoulay Estate, St. Remy district, 3 miles southeast of Soufrière.

Types.—Holotype, U.S.N.M. No. 52359, collected by me on May 8, 1936.

Records.—The following is the only record known to me:

St. Lucia: (Blackwelder station 220G).

Specimens examined.—I have seen only the unique type.

Remarks.—This specimen was found under chips on a fresh stump of the breadfruit tree.

4. INOPEPLUS STRIATULUS, new species

Description.—Flavous, all but the elytra generally rufescent, outer apical diagonal half of elytra cinnamomeous except for margins. *Head* moderately coarsely punctate, the punctures frequently separated by less than their diameter; scaly ground sculpture obsolescent posteriorly; with two indefinite areas of diagonal striations posteriorly on vertex; midline impressed anteriorly and impunctate though sculptured; sides behind eyes strongly converging. *Pronotum* nearly as wide as head behind eyes, two-fifths wider than long; base less than one-half as wide as apex; sides interrupted twice by large pocketlike folds of the margin, the anterior pair less visible from above; punctures coarse but not deep, separated by one to two times their diameter; smooth, without ground sculpture. *Elytra* at base nearly as wide as pronotum; humeral angles very finely tuberculate; over one-third wider at apical fourth; not distinctly punctate, but with large and shallow but vague depressions (more punctiform posteriorly); surface uneven but without ground sculpture; extending for about one-third their length beyond the metasternum. Abdomen above very sparsely and irregularly finely punctate; with vague ground sculpture. Length, 2¾ to 4¼ mm.

Type locality.—Guadeloupe, Gourbeyre.

Types.—Holotype and eight paratypes in the American Museum of Natural History; two paratypes in the United States National Museum (No. 52478).

Records.—The following is the only record known to me:

Guadeloupe: Gourbeyre (A.M.N.H., Acc. No. 4860).

Specimens examined.—I have seen only the 11 types.

Remarks.—This species is distinguishable by its size and apparent great breadth. It is marked somewhat similarly to *assistans* and *mutchleri.* The elytra are always lighter than the other parts.

I have no record of its capture. The specimens were purchased from a French dealer in 1916.

XVI. Genus GLYPTOMA Erichson

Glyptoma ERICHSON, 1840, p. 908.
Calocerus FAUVEL, 1891, p. 88.

Genotype.—*G. crassicorne* Erichson (designated by Duponchel, 1841; see "Remarks" under *Thoracophorus*). Of *Calocerus*, *Thora-*

cophorus cicatricosus Motschulsky=*Calocerus cicatricosus* (Motschulsky) (designated by Blackwelder, 1942).

Diagnosis.—Body rather cylindrical and elongate; head strongly rounded and constricted behind the eyes; antennae stout, outer segments transverse, all but one or two at base sculptured and pubescent; labrum very short, four times as wide as long, more or less tuberculate at sides; third segment of maxillary palpus much enlarged, fourth acicular; gular sutures entirely absent; anterior coxae small and globose, separated by a process of the prosternum; anterior coxal cavities nearly closed behind by processes of the inflexed pronotum; mesoternum very small, not connate with metasternum between the middle coxae; posterior coxae small and globose, not expanded laterally beneath the femora; abdomen not margined; sternites of first and second segments not present; trochanters all attached to end of femora; femora and tibiae unarmed; tarsi 3-segmented.

Remarks.—There has been no diagnosis of this genus published heretofore so far as I am aware. These characters were taken from *G. trinidadensis* and specimens of *G. cribellus* Sharp in the United States National Museum.

I have examined only the 10 examples from Trinidad and the Central American ones.

KEY TO WEST INDIAN SPECIES OF GLYPTOMA

1. Elytra unicostate____________________ 2. guadelupensis
Elytra without longitudinal costae____________________ 1. trinidadensis

1. GLYPTOMA TRINIDADENSIS, new species

Description.—Rufocastaneous to rufotestaceous. *Head* a little more than one-fifth wider than long, rounded behind the eyes; supra-antennal prominences feeble; with moderately coarse punctures on the vertex, separated by once to twice their diameter, much sparser anteriorly; smooth, without ground sculpture. *Pronotum* one-ninth wider than long, one-tenth narrower than the head, widest in front, scarcely narrowed to middle, but thence strongly to base; margin feebly crenulate; disk behind middle on each side of midline with a deep impression formed of two punctures united; with similar impressed punctures, usually smaller, at the sides, and sparsely in front. *Elytra* a little more than one-half longer than pronotum, two-fifths wider than pronotum, slightly widened posteriorly; each with a smooth, rounded, longitudinal elevation, but not at all costate; on each side of ridge and near outer margin with rather indefinite rows of moderately large punctures, more or less united and occasionally interrupted; without ground sculpture. *Abdomen* without ground sculpture; very coarsely punctate at base of segments. Length, 2¼ to 2½ mm.

Type locality.—Trinidad, River Estate near Diego Martin, 8 miles northwest of Port of Spain.

Types.—Holotype and seven paratypes, U.S.N.M. No. 52366, collected by me on December 27, 1935. One paratype has been deposited in the collection of Dr. M. Cameron and one in the British Museum.

Records.—The following is the only record know to me:

Trinidad: Diego Martin (Blackwelder station 109B).

Specimens examined.—I have seen only the 10 specimens mentioned above.

Remarks.—This species seems to be readily distinguishable from the preceding by its not costate elytra and integuments without ground sculpture.

It was collected from under bark of a rotting immortelle log.

2. GLYPTOMA GUADELUPENSIS (Wendeler)

Calocerus guadelupensis WENDELER, 1930, p. 182.—SCHEERPELTZ, 1933, p. 1021.

Description.—Rufocastaneous. *Head* quadrate; as wide as pronotum, as long as wide; sides behind the eye forming a small tooth; finely strigulose in front, otherwise smooth; with two strong punctures between the antennal prominences; vertex with three pairs of punctures; at the sides behind the antennal prominences with a large puncture in a longitudinal channel. *Pronotum* as long as wide, widest in front, narrowed slightly to tip, but by half its width from the middle posteriorly, sides emarginate posteriorly; disk behind the middle with a strong transverse impression of two deep coarse punctures, rest of surface with large but somewhat weak punctures. *Elytra* as long as pronotum but somewhat wider, feebly wider posteriorly; with prominent humeral angles; each with a sharp costa, which at tip recurves outwardly to unite with another costa that arises at the humerus; strongly longitudinally strigulose, and with strong shallow sparse punctures. *Abdomen* strigulose; each tergite with a transverse row of large punctiform impressions. Length, 3 mm. (From Wendeler.)

Type locality.—Guadeloupe, Trois Rivières, Basse Terre.

Types.—In the Museum für Naturkunde zu Berlin and the collection of Herr Dufau.

Records.—Only the original record is known to me:

Guadeloupe: Basse Terre (Wendeler, 1930).

Specimens examined.—I have not been able to examine any examples of this species.

Remarks.—Said to be similar to *G. hirticornis* Sharp. Its habits were not recorded.

XVII. Genus ESPESON Schaufuss

Espeson Schaufuss, 1882a, p. 168.
Subgenus *Parespeson* Bernhauer, 1926a, p. 261.

Genotype.—*E. moratus* Schaufuss (monobasic). Of *Parespeson*, *Espeson* (*Parespeson*) *angustissimus* Bernhauer (monobasic).

Diagnosis.—Narrow, cylindrical; head without depressions; gular sutures entirely absent; labrum very short with membranous processes at the outer angles; antennae feebly enlarged apically, only the outer segments transverse; mandibles very short; second segment of maxillary palpus enlarged, third very small, fourth long and slender; anterior coxal cavities confluent, open behind; mesosternum carinate or elevated posteriorly; posterior coxae approximate, not expanded beneath the femora; abdomen not marginated, without paratergites; sternites of first and second segments not present; tarsi 3-segmented.

Remarks.—I can find no description of this genus except the brief one given by Schaufuss. The diagnosis given above was drawn from *E. moratus* and *E. crassulus*. The genus must date from its publication in the Annali del Museo Civico di Storia Naturale di Genova (pages 97 to 352 were published in March 1882) instead of from the note in the Annales de la Société Entomologique de France (pages 1 to 48 were published in May 1882).

The record of *Espeson crenicollis* Fauvel from the West Indies by Leng and Mutchler, 1914, is based on its record from Key Island. This refers, however, to the East Indies. It must, therefore, be removed from our list.

I have examined 37 examples of this genus from the West Indies. Of these I collected 9 during 1935–37. They belong to 4 species, all previously known.

KEY TO WEST INDIAN SPECIES OF ESPESON

1. Elytra coarsely punctate	1. **crassulus**
Elytra moderately or finely punctate	2
2. Base of pronotum deeply foveolate in front of scutellum	2. **euplectoides**
Pronotum scarcely depressed at middle	3
3. Pronotum posteriorly depressed on each side of narrow middle area; strongly narrowed posteriorly	3. **moratus**
Pronotum not impressed posteriorly; much less narrowed	4. **nitens**

1. ESPESON CRASSULUS Fauvel

Espeson crassulus Fauvel, 1902a, p. 35.—Bernhauer and Schubert, 1910, p. 24.—Leng and Mutchler, 1914, p. 403.

Description.—Rufous throughout. *Head* convex, almost as wide as pronotum, strongly rounded behind the eyes, scarcely constricted at the neck above; with the dorsal tentorial pits visible on the vertex near the constriction; without elevations above the base of the antennae; moderately coarsely but irregularly punctate, obsoletely in front; with a vague trace of ground sculpture. *Pronotum* two-fifths wider than long, widest at anterior third, strongly narrowed to base but with a subtuberculate prominence[7] at middle and an emargination behind it; base one-half as wide as maximum; posterior emarginations forming short vertical grooves on the sides, somewhat visible from above; punctures coarse but scattered, frequently coalescing, and with a few larger punctures symmetrically placed in pairs; disk rather flattened, sometimes feebly depressed about an irregular smooth center elevation; with only a trace of vague ground sculpture. *Elytra* scarcely one-fifth wider than pronotum, rather strongly rounded at sides; hind angles rounded; punctures very coarse, generally separated by less than their diameter; with only a trace of vague ground sculpture. *Abdomen* with very large but very shallow punctures, especially on basal segments; ground sculpture more definite than on other parts. Length, 2½ to 3 mm.

Type locality.—"Antilles: Guadeloupe; Saint-Vincent."

Types.—Presumably in the collection of Blanche Rancin, Caën, France.

Records.—The following are the records known to me:

Montserrat: (Hubbard, in U.S.N.M.).
Guadeloupe: (Fauvel, 1902; Leng and Mutchler, 1914).
St. Lucia: (Blackwelder station 211D, 220D).
St. Vincent: (Fauvel, 1902; Leng and Mutchler, 1914; British Museum).

Specimens examined.—One example in the British Museum, three in the United States National Museum, and five collected by me in 1935–37.

Remarks.—This species varies slightly in the flatness or depression of the disk of the pronotum and the number of the larger punctures.

It has been collected from rotting banana stalks and from decaying cocoa pods.

2. ESPESON EUPLECTOIDES Fauvel

Espeson euplectoides FAUVEL, 1902a, p. 37.—BERNHAUER, 1910, p. 352.—BERNHAUER and SCHUBERT, 1910, p. 24.—LENG and MUTCHLER, 1914, p. 403.

Description.—Rufous throughout. *Head* convex, one-fifth narrower than pronotum, strongly rounded behind the eyes, scarcely constricted at neck above; dorsal tentorial pits visible on vertex posteriorly; with distinct supraantennal prominences; moderately coarsely but irregularly punctate, less definitely in front; with only a vague trace of ground sculpture. *Pronotum* one-fifth wider than long, widest at anterior third; anterior angles rounded; sides without prominence at middle, narrowly emarginate near base; base less than

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[7] This prominence is tuberculiform only in profile. It is formed by a carina which runs diagonally from the dorsal to the ventral side, enclosing a concavity on its anterior side.

one-half as wide as maximum; disk not flattened but with midline strongly and deeply impressed near base and less strongly near apex; punctures rather coarse and regular, without larger ones; with scarcely a trace of ground sculpture. *Elytra* almost one-third wider than pronotum, as long as wide, strongly rounded at sides and apical angles; punctures moderate and regular, generally separated by twice their diameter or more; with scarcely a trace of ground sculpture. *Abdomen* with a row of moderate and deep punctures on each segment above and beneath; sculpture not distinct. Length, 1⅓ mm.

Type locality.—Guadeloupe.

Types.—Presumably in the collection of Blanche Rancin, Caën, France.

Records.—The following are the records known to me:

Guadelope: (Fauvel, 1902; Bernhauer, 1910; Leng and Mutchler, 1914; A.M.N.H.; U.S.N.M.).
Dominica: (A.M.N.H.).
Trinidad: St. Augustine (Weber, in M.C.Z.).

Specimens examined.—Ten examples were examined in the American Museum of Natural History; three of these were borrowed for further study, and later two of them were received in exchange. One other is in the Museum of Comparative Zoology.

Remarks.—The pronotal foveae distinguish this species at once from the others in our region.

I do not find any record of the habits of this species.

3. ESPESON MORATUS Schaufuss

Espeson moratus Schaufuss, 1882a, p. 168; 1882b, p. 45; 1887, p. 112.—Bernhauer and Schubert, 1910, p. 24.—Leng and Mutchler, 1914, p. 403.

Description.—Rufotestaceous throughout. *Head* convex, with eyes at least as wide as pronotum; abruptly but not angularly constricted close behind the eyes, constriction not distinct dorsally; dorsal tentorial pits visible on vertex posteriorly; supraantennal prominences small and feeble; moderately punctate, more finely in front; with only a vague trace of ground sculpture. *Pronotum* one-third wider than long, widest just before apex, sides regularly arcuately narrowed to base but with a triangular emargination just before base; base three-fifths as wide as maximum; disk convex but irregularly impressed at base at sides of midline forming a vague ridge; punctures moderate, irregular, generally separated by less than their diameter; without larger ones; only a vague trace of ground sculpture. *Elytra* one-fourth wider than pronotum, one-tenth wider than long; sides and apical angles rounded; punctures moderately fine and sparse, on disk separated by twice or thrice their diameter; only a vague trace of ground sculpture. *Abdomen* with transverse rows obsolescent; sculpture feeble and irregular. Length, 1¼ to 1½ mm.

Type locality.—St. Thomas.

Types.—Presumably in the National Museum, Prague.

Records.—The following are the records known to me:

Cuba: (Schaufuss, 1887), Soledad (Leavitt, in M.C.Z.).
Jamaica: Santa Cruz (Blackwelder station 421).
Puerto Rico: El Yunque (Darlington, in M.C.Z.).
St. Thomas: (Schaufuss, 1882a, 1882b; Leng and Mutchler, 1914).
Montserrat: (Hubbard, in U.S.N.M.).
St. Lucia: (Blackwelder station 211D).
St. Vincent: (British Museum).
Grenada: (British Museum).
Trinidad: Rio Claro (Weber, in M.C.Z.), Aripo Valley (Weber, in M.C.Z. and U.S.N.M.).

Specimens examined.—Three examples in the British Museum, four from the Museum of Comparative Zoology, six in the United States National Museum, and four collected by me in 1935-37.

Remarks.—Schaufuss evidently expected his formal description of this species to be published (in the Annali del Museo Civico di Storia Naturale di Genova) after his short note in the Annales de la Société Entomologique de France. However, the former paper was published in March 1882 and the latter in May of the same year. The species was therefore validated in the former, and the references in the Junk Catalog (Bernhauer and Schubert, 1910) should be transposed.

This species has been collected in rotting banana stalks and flying at dusk and also from deep in a cave.

4. ESPESON NITENS Fauvel

Espeson nitens Fauvel, 1902a, p. 36.—Bernhauer and Schubert, 1910, p. 24.—Leng and Mutchler, 1914, p. 403.

Description.—Rufous, elytra testaceous. *Head* sparsely and finely punctate, eyes large; narrowed posteriorly from the eyes, constricted. *Pronotum* much less constricted from middle to base; punctured as the head; disk scarcely depressed at middle. *Elytra* enlarged, one-fourth longer than pronotum; punctured three times as sparsely as in *crassulus* and somewhat less strongly. *Abdomen* without visible punctures. Length, 2 mm. (From Fauvel.)

Type locality.—"Brésil; Guadeloupe."

Types.—Presumably in the collection of Blanche Rancin, Caën.

Records.—The following are the records known to me:

Guadeloupe: (Fauvel, 1902; Leng and Mutchler, 1914).
South America: Brazil (Fauvel, 1902).

Specimens examined.—I have seen no specimens that I can identify as this species.

Remarks.—This species has apparently not been collected since its description. Fauvel had two specimens. The characters given in the description are not definite enough to enable one to separate it with certainty from *moratus*, and it is likely that the Guadeloupe example will be found to be the same as that species. Inasmuch as Fauvel states that he had specimens of *moratus* and may be presumed to have compared them, I retain the species in our list tentatively.

I find no record of its habits.

XVIII. Genus THORACOPHORUS Motschulsky

Thoraxophorus Motschulsky, 1837, pp. 98, 101 (error in transcription).
Thoracophorus Motschulsky, 1840, p. 197.
Thoraxocophorus Kraatz, 1858a, pp. 1047, 1048 (misspelling).
Subgenus *Stilbogastrus* Bernhauer, 1908b, p. 286.
Subgenus *Leipophorus* Bernhauer, 1926a, p. 261.

Genotypes.—*T. corticinus* Motschulsky (monobasic). Of *Stilbogastrus*, *Thoracophorus nitidus* Bernhauer=*Thoracophorus* (*Stilbogastrus*) *nitidus* Bernhauer (monobasic); of *Leipophorus*, *Thoracophorus* (*Leipophorus*) *minutissimus* Bernhauer (designated by Blackwelder, 1942).

Diagnosis.—Body cylindrical; head margined in front and at sides above the eyes; gular sutures united; antennae short and stout; mandibles very short; second segment of maxillary palpus much enlarged, third wide but very short, fourth elongate but rather stout; head, pronotum, and elytra more or less costate; prosternum not greatly prolonged; front coxae globose, cavities confluent, narrowly open behind; posterior coxae contiguous, "transverse" (not expanded under the femur); abdomen not or very finely and indistinctly margined; sternites of first and second segments not present; tarsi 3-segmented.

Remarks.—The genus named *Glyptoma* by Erichson was almost exactly synonymous with *Thoracophorus* (as indicated by Erichson), and five of the six original species are still placed in that genus. Unfortunately, however, the first genotype designation was that of Duponchel in 1841, in which he fixed the type as *G. crassicorne* Erichson. This species is now placed in *Calocerus*, and *Glyptoma* is therefore the same as that genus and takes precedence over it.

The change of spelling by Motschulsky was justified by him as the correction of an error in transcription, and as such is acceptable under Article 19 of the International Rules.

I have seen no examples of Erichson's two species from our region and have therefore depended upon his descriptions for their characters. One of them is quite distinct in certain characters from any I have seen.

The records of *Thoracophorus ruficollis* Fauvel from Guadeloupe by Fleutiaux and Sallé and by Leng and Mutchler are probably based upon a misidentification. Until the specimens can be reexamined, it must be regarded as a doubtful record.

I have examined 135 examples of this genus from the West Indies. They appear to belong to 7 species of which 2 are new.

KEY TO WEST INDIAN SPECIES OF THORACOPHORUS

1. Lateral margin of pronotum quadridentate---------- 2
   Lateral margin of pronotum at most crenulate---------- 3
2. From Trinidad[8]---------- 6. dubitans
   From Puerto Rico---------- 7. denticollis
3. Pronotum with five finely elevated longitudinal carinae---------- 5. exilis
   Pronotum without median ridge---------- 4
4. Submarginal ridge of pronotum attaining margin at anterior angles---------- 4. guadalupensis
   Submarginal ridge of pronotum deflexed mesad; not attaining margin---------- 5
5. Pronotal ridges carinate---------- 6
   Pronotal ridges not carinate---------- 1. simplex
6. Pronotum not much narrowed behind---------- 2. rectangulus
   Pronotum strongly narrowed behind---------- 3. brevicristatus

1. THORACOPHORUS SIMPLEX Wendeler

Thoracophorus simplex WENDELER, 1930, p. 181.—SCHEERPELTZ, 1933, p. 1021.

Description.—Castaneous. *Head* with feebly carinate margin; no submarginal carinae posteriorly; vertex elevated in two short longitudinal rounded ridges. *Pronotum* one-third wider than long; sides slightly narrowed anteriorly from middle, but strongly and emarginately narrowed posteriorly, more or less crenulate; with a large fovea at each lateral emargination, spaces between the ridges rather strongly depressed, except at middle where there is a feeble narrowly V-shaped elevation; with four longitudinal ridges, the middle pair not bifid at apex; the outer pair distant from the margin and deflexed inwardly near apex. *Elytra* one-fifth wider than pronotum, as long as wide, sides somewhat rounded, apical angles obsolete; with four feebly carinate longitudinal ridges, no sign of additional ridge between the first and second. *Integuments* not shining, with very dense and minute scaly sculpture. Length, 1½ to 1¾ mm.

Type locality.—Guadeloupe, Trois-Rivieres.

Types.—In collection of Hans Wendeler.

Records.—The following are the records known to me:

Puerto Rico: (U.S.N.M.), Adjuntas (Blackwelder station 48B), Mayagüez (Blackwelder station 358B).
Montserrat: (Hubbard, in U.S.N.M.).
Guadeloupe: (Wendeler, 1930), Gourbeyre (A.M.N.H., Acc. No. 4860).
Dominica: (Blackwelder station 237).
St. Lucia: (Blackwelder stations 221, 227).
Grenada: (Blackwelder station 153B).

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[8] See "Remarks" under description of *T. dubitans*.

Specimens examined.—I have examined 60 examples in the United States National Museum, 5 in the American Museum of Natural History, and 9 collected by me in 1935–37.

Remarks.—This species is readily distinguished by its fine and dense sculpture, its feeble ridges, and the incurved submarginal ridge of pronotum.

It has been taken in trash on banana boats, in fungus, in decaying cocoa pods, and under bark of rotting logs.

2. THORACOPHORUS RECTANGULUS, new species

Description.—Rufocastaneous. *Head* with side margins rather strongly explanate; with a strong submarginal carina anteriorly from above the antennal fossa; vertex with two feeble ridges at middle. *Pronotum* one-fourth wider than long, one-sixth wider than head: anterior angles prominent; sides slightly curved throughout until just before basal angles, which are right; sides crenulate; with a large fovea near each basal angle; with four longitudinal ridges, the inner pair feeble, the submarginal pair abruptly deflected from the anterior angles and without branches; disk without fine carinulae but densely sculptured. *Elytra* one-fifth wider than pronotum and one-fifth wider than long; sides feebly rounded with posterior angles visible; with four longitudinal ridges of which only the outer is carinate, without additional traces. *Integuments* with very dense and moderately fine ground sculpture, feebler on abdomen. Length, 2 mm.

Type locality.—Trinidad, 10 miles north of Arima, elevation 1,800 feet.

Types.—Holotype, in Museum of Comparative Zoology, and one paratype, in United States National Museum (No. 52401), collected by N. A. Weber on March 28, 1935.

Records.—The following is the only record known to me:

Trinidad: Arima (Weber, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the two types.

Remarks.—This species differs from *brevicristatus* principally in the shape of the pronotum but also in details of carination.

I have received no record of its habits.

3. THORACOPHORUS BREVICRISTATUS (Horn)

Glyptoma brevicristatus Horn, 1871, p. 332.—Sharp, 1887, p. 726.—Henshaw, 1898, p. xliii.

Thoracophorus brevicristatus (Horn) Fauvel, 1878a, p. 176; 1878c, pp. 11, 12.—Sharp, 1887, p. 726.—Fauvel, 1902, pp. 32, 33.—Bernhauer and Schubert, 1910, p. 25.—Leng and Mutchler, 1914, p. 403.—Scheerpeltz, 1933, p. 1020.

Description.—Castaneous to rufocastaneous. *Head* with margin rather strongly explanate, especially the sides posteriorly; with a strong submarginal carina anteriorly from above the antennal fossae;

vertex with two tuberculate prominences extended as irregular carinae for a short distance anteriorly. *Pronotum* three-tenths wider than long, one-twelfth wider than head; anterior angles prominent; sides nearly straight in apical three-fourths, at base so strongly narrowed they merge with base, distinctly crenulate; no foveae at margin; with four longitudinal ridges, middle two forked at anterior third; submarginals distant from margin at anterior angles and deflexed inward, with a small branch at middle on outer side; disk without fine carinulae but coarsely sculptured. *Elytra* about one-sixth wider than pronotum and one-sixth wider than long; sides feebly rounded but posterior angles visible; with four strong carinate longitudinal ridges and a trace of an additional one between the first and second. *Integuments* with very dense but not very fine ground sculpture, less evident on abdomen. Length, 2 to 2¼ mm.

Type locality.—Arizona, Camp Grant.

Types.—One specimen in the Horn collection at the Academy of Natural Sciences of Philadelphia.

Records.—The following are the records known to me:

Cuba: Cayamas (Schwarz, in U.S.N.M.).
Puerto Rico: Mayagüez (Blackwelder station 358B).
St. Thomas: (Fauvel, 1902; Leng and Mutchler, 1914).
St. Croix: (Beatty, in U.S.N.M.).
Guadeloupe: (Fauvel, 1902; Leng and Mutchler, 1914).
Central America: MEXICO (Fauvel, 1878, 1902; Sharp, 1887).
North America: FLORIDA (Schwarz, in U.S.N.M.), ARIZONA (Horn, 1871; Fauvel, 1878, 1902; Sharp, 1887).

Specimens examined.—Five examples in the United States National Museum and two collected by me in 1935–37.

Remarks.—I am unable to find any characters to separate the West Indian examples from the Florida ones. I have not been able to verify the St. Thomas and Guadeloupe records given by Leng and Mutchler. Fauvel's remarks on this species seem to me to be unnecessary as Horn's description fits our examples accurately.

In 1902 Fauvel proposed *deletus* from the Philippine Islands and Reunion as a variety of *brevicristatus.* It has not since been reported, and I have grave doubts that it is related to *brevicristatus.* I omit it from the synonymy as a probable error in identification.

This species has been collected from under the bark of rotting logs and flying at dusk.

4. THORACOPHORUS GUADALUPENSIS Cameron

Thoracophorus guadalupensis CAMERON, 1913b, p. 323.—LENG and MUTCHLER, 1917, p. 198.—SCHEERPELTZ, 1933, p. 1021.

Description.—Castaneous to piceocastaneous. *Head* with margin only moderately explanate; with a moderately strong submarginal carina anteriorly from above the antennal fossa; vertex with two feebly carinate ridges posteriorly. *Pronotum* a little more than one-fifth wider than long, one-tenth wider than head; anterior angles prominent; sides crenulate but nearly straight in apical two-thirds, feebly emarginate just before the posterior angles; apex one-tenth wider than base which is abruptly set off from sides; with four feeble longitudinal ridges, middle pair forked at anterior fourth, submarginals joining margin at anterior angles; disk with vague traces of longitudinal carinulae. *Elytra* three-tenths wider than long and three-tenths wider than pronotum; sides nearly straight, but posterior angles narrowly rounded; with four moderately strongly carinate longitudinal ridges. *Integuments* with very dense and rather fine ground sculpture, less distinct on abdomen. Length, 1½ to 1¾ mm.

Type locality.—Grenada (see "Remarks" below).

Types.—One of two specimens in the British Museum. Neither has been labeled type. One is from Black Forest Estate; the other has no special locality recorded.

Records.—The following are the records known to me:

Cuba: Cayamas (Schwarz, in U.S.N.M.), Mina Carlota, Trinidad Mountains (Mann, in U.S.N.M.).
Jamaica: Santa Cruz (Blackwelder station 421), Kingston (Blackwelder station 378), Troy (Blackwelder station 409).
Hispaniola: HAITI (Cameron, 1913; Leng and Mutchler, 1917).
Puerto Rico: Mayaguez (Blackwelder station 358B).
Dominica: Long Ditton (A.M.N.H.).
St. Lucia: (Blackwelder station 220H).
St. Vincent: (British Museum).
Grenada: (Cameron, 1913; Leng and Mutchler, 1917; British Museum).
Trinidad: Port of Spain (Blackwelder station 109B), Mayaro Bay (Weber, in M.C.Z.).

Specimens examined.—I have seen 6 examples in the British Museum, 18 in the United States National Museum, 2 in the American Museum of Natural History, 1 in the Museum of Comparative Zoology, and 8 collected by me in 1935–37.

Remarks.—In the original description Dr. Cameron cites this species from "Grenada (H. H. Smith); Haiti. Type in the British Museum." I found six examples in the collection of that institution, but four were from St. Vincent and none from Haiti. Grenada is therefore the type locality, and a lectotype should be chosen from the two examples. I did not see any specimens in Dr. Cameron's collection but presume that he has the Haitian specimens there.

The examples from St. Vincent seem to differ very slightly from the cotypes in having the two median ridges of the pronotum not distinctly convergent near the middle. This seems to be a variable character. I find also considerable variation in the approach of the submarginal ridge to the anterior angle, in the number of fine costulae on the disk of the pronotum and posterior part of the head, in the distinctness of the obsolete costa of elytra between the first and second, and in other characters.

I have taken this species flying at dusk, under bark of rotting logs, and under chips on stumps of the breadfruit tree.

5. THORACOPHORUS EXILIS (Erichson)

Glyptoma exile Erichson, 1840, p. 910.—Lacordaire, 1854, p. 149.—Fauvel, 1865, pp. 63, 65.

Thoracophorus exilis (Erichson) Motschulsky, 1859, p. 67.—Bernhauer and Schubert, 1910, p. 26.—Bernhauer, 1921b, p. 170.

Description.—Rufoferrugineous, opaque. *Head* as wide as pronotum; sides acutely margined; with two longitudinal elevated lines. *Pronotum* nearly as wide as elytra, anterior angles right, not at all prominent; sides straight in front, posteriorly moderately suddenly sinuately narrowed; subdepressed, moderately uneven; with five feebly elevated longitudinal ridges, the external pair submarginal. *Elytra* one-half longer than pronotum; with four longitudinal costae, interstices smooth. Length, 1½ mm. (From Erichson.)

Type locality.—St. Thomas.

Types.—Either in the Hope Museum, Oxford, or the Zoologische Museum, Berlin.

Records.—The following are the records known to me:

St. Thomas: (Erichson, 1840; Lacordaire, 1854; Fauvel, 1865).
[South America: Brazil (Bernhauer and Schubert, 1910).]

Specimens examined.—I have seen no specimens that I can associate with this name and description.

Remarks.—This species should be amply distinct by the presence of the fifth elevated line on the pronotum, although this might be an error in description for the situation that is found in *T. simplex.* At present it must be retained in our lists as a species not recognized since the original description.

I assume that the locality "Brasilien" cited by Bernhauer and Schubert is an error, as they do not cite the type locality and I find no other record of South America. Erichson's original citation was: "Habitat in Americae merid. ins. St. Thomae, Dom. Moritz."

Erichson makes no specific mention of habits, but records this genus from under bark.

6. THORACOPHORUS DUBITANS, new species

Description.—Piceoferrugineous. *Head* very deeply grooved and strongly ridged; side margins strongly elevated from the acute posterior angles to the antennal fossae, the front margin rather finely carinate; with a large rounded prominence over the antennal fossa continued forward diagonally as a submarginal ridge; center of vertex with a strong elevation partially divided longitudinally by a deep groove, leaving two ridges that are most prominent posteriorly; with a large fossa immediately inside the lateral margin just over each eye. *Pronotum* with strong ridges and depressions; three-fifths wider than long, one-fourth wider than head; outer pair of four longitudinal ridges short and extending from front angles to third tubercle, middle pair very strongly carinate, more or less joined at the front margin and also at the base; this pair separated from the sides by three large foveae on each side; all four angles prominent, tuberculate, and side margins bearing also two other tubercles on each side. *Elytra* one-fourth wider than pronotum, one-fourth wider than long; nearly straight at the sides; outer apical angles rounded; with four strong longitudinal costae separated by double rows of very large punctures. *Integuments* finely and very densely sculptured, not so evident on pronotum and abdomen. Length, 2 mm.

Type locality.—Trinidad, deep in cave in Aripo Valley, elevation 2,600 feet.

Types.—Holotype and 10 paratypes, Museum of Comparative Zoology; 6 paratypes in the United States National Museum (No. 52480); all taken at the type locality by N. A. Weber on April 19, 1935.

Records.—The following is the only record known to me:

Trinidad: Aripo Valley (Weber, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the 17 types.

Remarks.—This species can be confused with none except *denticollis.* It agrees in a general way with the description of the latter but seems to be much more developed. Inasmuch as *denticollis* has never been reported since the original description and was from Puerto Rico, it seems best to treat these Trinidad specimens as distinct until more data are at hand.

They were collected from "mouth of cave" to "deep in cave," without further details.

7. THORACOPHORUS DENTICOLLIS (Erichson)

Glyptoma denticollis Erichson, 1840, p. 910.—Lacordaire, 1854, p. 149.—Fauvel, 1865, pp. 63, 64.—Leng and Mutchler, 1914, p. 403.

Thoracophorus denticollis (Erichson) Bernhauer and Schubert, 1910, p. 25.—Leng and Mutchler, 1914, p. 403.

Thoracophorus dentricollis Wolcott, 1924, p. 77; 1936, p. 196.

Description.—Testaceoferrugineous, head, pronotum, and abdomen above darker. *Head* longer than pronotum, marginate at front and sides; bituberculate at middle. *Pronotum* a little narrower than elytra, wider than long; subdepressed; unevenly costate, tuberculate, and foveolate; lateral margin dilated, quadridentate; posteriorly suddenly narrowed. *Elytra* with four regular costae, interstices finely punctate. Length, 2 mm. (From Erichson.)

Type locality.—Puerto Rico.

Types.—Either in the Hope Museum, Oxford, or the Zoologische Museum, Berlin.

Records.—The following are the records known to me:

Puerto Rico: (Erichson, 1840; Lacordaire, 1854; Fauvel, 1865; Leng and Mutchler, 1914; Bernhauer and Schubert, 1910; Wolcott, 1924, 1926).

Specimens examined.—I have seen no specimens that agree with the above description.

Remarks.—This species should be very distinct by its quadridentate pronotal margins. It has apparently not been collected since it was described.

Erichson gives no clue to its habits except the statement that this genus is found under bark.

XIX. Genus ELEUSIS Laporte

Eleusis LAPORTE, 1834, p. 131.
Chasolium LAPORTE, 1834, p. 132.
Isomalus ERICHSON, 1840, p. 838.

Genotype.—*E. tibialis* Laporte (monobasic). Of *Chasolium*, *C. ernestini* Laporte (monobasic); of *Isomalus*, *I. humilis* Erichson (designated by Duponchel, 1841).

Diagnosis.—Body slender, parallel, strongly depressed, alate; head irregularly quadrate, abruptly declivous in front, with the clypeus scarcely visible; labrum one-third as wide as head, short, ciliate, apparently without appendages; antennae moniliform, nearly as long as head and pronotum, first segment not swollen; mandible with at least one small tooth; maxillary palpus moderately stout, fourth segment longer and much narrower than third; labial palpi short and stout; gular sutures united, mentum short and broad, rectangular; pronotum slightly transverse, narrowed behind, edges laterally interrupted at basal third only; prosternum long, coxae small, feebly elongate, cavities open behind and confluent; elytra scarely longer than the mesosternum and metasternum; middle coxal cavities not separated at the level of the sterna; posterior coxae approximate, broadly expanded under the femora; abdominal segments margined above; sternites of first and second segments not present; femora and tibiae not dentate or strongly spinose except at tip of latter; tarsi 5-segmented, fifth tarsomere as long as four preceding together.

Remarks.—Only two specimens of one species of this genus have been seen from the West Indies. Since no examples of the genus from Madagascar are available, it is difficult to verify the above synonymy or to be sure that our species is congeneric with the genotype. Numerous species are known from tropical or subtropical regions throughout the world.

1. ELEUSIS DARLINGTONI, new species

Description.—Black, elytra flavous with margins piceous, especially the apical, abdomen castaneous. *Head* irregularly quadrate, abruptly narrowed a short distance behind the eyes, which are not very prominent and are separated by more than their length from base; disk flattened and sometimes biimpressed between the antennal ridges; with very fine and very sparse punctures and with very distinct strigulose ground sculpture. *Pronotum* one-sixth wider than long, as wide as head, base scarcely over one-half greatest width; disk posteriorly with a V-shaped impression; side margins strongly interrupted at basal third by a setiferous ridge; punctation and sculpture as on head. *Elytra* scarcely longer than broad, one-seventh wider apically than near base, scarcely wider at base than pronotum; with very sparse and exceedingly minute punctures obscured by coarse ground sculpture. *Abdomen* above punctured as elytra and with feeble transverse strigulose sculpture. Length, 2½ mm.

Type locality.—Cuba, Soledad, near Cienfuegos, province of Santa Clara.

Types.—Holotype in Museum of Comparative Zoology, one paratype in United States National Museum (No. 52477), collected in April 1936 by Dr. P. J. Darlington.

Records.—The following is the only record known to me:

Cuba: Soledad (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the two types.

Remarks.—This species is quite distinct from other West Indian Staphylinidae by its depressed parallel form and the single pair of interruptions in the margins of the pronotum. It is distinct from the few species of *Eleusis* available to me from the Americas. These are probably not accurately identified so are not listed here.

I have received no record of its habits.

XX. Genus PARALISPINUS Bernhauer

Ancaeus Fauvel, 1865, p. 12, 60. (Not Risso, 1816.)
Paralispinus Bernhauer, 1921, p. 67 (new name for *Ancaeus*).
Anccaeus Wolcott, 1936, p. 196 (misspelling).

Genotype.—Of *Ancaeus*, *A. megacephalus* Fauvel (monobasic); of *Paralispinus*, same (International Rules, Article 30, II, *f*).

Diagnosis.—Body elongate, subcylindrical; usually with ground sculpture, glabrous; head not margined but biimpressed in front; distal antennal segments transverse; labrum very short with angles produced; mandibles unarmed; segments of maxillary palpi subcylindrical, decreasing in thickness from the second to fourth; mentum subtriangular; gular sutures united throughout; prosternum not produced between coxae but forming a carina between and beneath them; anterior coxal cavities open behind; coxae short but exserted, without transverse sulcus on the anterior face; mesosternum and metasternum not visibly united between middle coxae; mesosternum not carinate; metasternum not punctate; abdomen not margined; first and second sternites absent, third carinate at middle; apical segments scarcely different in the two sexes; tarsi 5-segmented; tibiae not greatly expanded and without spines except at tip.

Remarks.—The history of this genus is outlined under *Lispinus.* It is a very natural member of the Osoriinae and will give much less trouble in that group than it has heretofore in the Piestinae. The anterior coxae are not so prominent as in some members of the tribe but are distinctly not of the globose form found in the Piestinae.

I have examined 89 specimens of this genus, apparently belonging to 5 species, of which 3 are new.

KEY TO WEST INDIAN SPECIES OF PARALISPINUS

1. Head, pronotum, and elytra without ground sculpture---------- 1. **politus**
   Head, pronotum, and elytra with distinct ground sculpture---------- 2
2. Elytra piceous, pronotum testaceous, head and abdomen fuscotestaceous---------- 3. **rulomus**
   Unicolorous (rufous or testaceous) or nearly so---------- 3
3. Antennae very stout; impressions of head large and well marked---------- 4. **crepusculus**
   Antennae not stout; impressions of head, moderate and indefinite---------- 4
4. Head, pronotum, and elytra with distinct punctures not obscured by ground sculpture---------- 5. **punctatus**
   Head, pronotum, and elytra without punctures or with them obscured by ground sculpture---------- 2. **exiguus**

1. PARALISPINUS POLITUS (Sharp)

Ancaeus politus Sharp, 1887, p. 718.—Bernhauer and Schubert, 1910, p. 19.

Description.—Rufotestaceous. *Head* moderately truncate in front; with two vague impressions, not clearly delimited; very finely and irregularly punctate; without ground sculpture; smooth, shining. *Pronotum* about one-fifth wider than long, scarcely rounded at sides, abruptly narrowed at posterior third; foveate at posterior angles; midline very feebly canaliculate at basal third; finely, irregularly, and very sparsely punctate; smooth, shining, without ground sculpture. *Scutellum* smooth, impunctate. *Elytron* with narrow sutural band elevated but stria not impressed, without trace of discal stria; not visibly punctate except for a moderate puncture at middle of disk; with slight trace of ground sculpture only near apex. Length 2¼ to 2½ mm.

Type locality.—Guatemala, El Tumbador.

Types.—One example marked type in the British Museum.

Records.—The following are the records known to me:

Guadeloupe: (British Museum; A.M.N.H.).
St. Lucia: (Blackwelder station 208B).
St. Vincent: (British Museum).
Central America: GUATEMALA (Sharp, 1887).

Specimens examined.—I have seen eight examples including the type in the British Museum, one in the American Museum of Natural History, and three collected by me in 1935–37.

Remarks.—This species is very distinct by its smooth integuments. My specimens were taken from under bark of a log in the forest.

2. PARALISPINUS EXIGUUS (Erichson)

Lispinus exiguus ERICHSON, 1840, p. 830.
Lispinus laevigatus KRAATZ, 1859b, p. 188. (Not Bernhauer, 1906.)
Lispinus rufescens LECONTE, 1863, p. 59.
Lispinus rufus Chevrolat MS., FAUVEL, 1865, p. 60 (as synonym).
Holotrochus fauveli SHARP, 1876, pp. 387, 392.
Ancaeus rufescens (LeConte) LECONTE, 1877, p. 249.
Ancaeus aruensis FAUVEL, 1878b, p. 200.
Lispinodes pallescens BLACKBURN, 1885, p. 126.
Ancaeus fauveli (Sharp) SHARP, 1887, p. 716.
Ancaeus exiguus (Erichson) FLEUTIAUX and SALLÉ, 1889, p. 383.
Ancaeus laevigatus (Kraatz) BERNHAUER and SCHUBERT, 1910, p. 19.
Ancaeus pallescens (Blackburn) BERNHAUER and SCHUBERT, 1910, p. 19.
Paralispinus obscuripennis BERNHAUER, 1926a, p. 225 (as variety).
Paralispinus exiguus (Erichson) CAMERON, 1928b, p. 96.
Lispinus aruensis (Fauvel) CAMERON, 1930, p. 42.
Lispinus fauveli (Sharp) CAMERON, 1930, p. 42. (Not Sharp, 1887, p. 720.)
Lispinus pallescens (Blackburn) CAMERON, 1930, p. 42.

Description.—Testaceous, sometimes partly rufescent. *Head* rather broadly truncate in front; longitudinal impressions distinct, rather feebly separated from margin; scarcely visibly punctate; ground sculpture fine and linear, but sometimes appearing somewhat scaly. *Pronotum* almost one-fourth wider than long; sides almost straight, converging from apex to base; scarcely at all emarginate posteriorly; foveate at posterior angles; midline vaguely canaliculate; punctures exceedingly fine, somewhat serial; finely and feebly longitudinally strigulose. *Scutellum* smooth, with two or three fine punctures. *Elytron* virtually impunctate, except for one large puncture in center of disk; sutural stria obsolescent; no trace of discal stria; sculpture similar to pronotal but less distinct. Length, 1¾ to 2¼ mm.

Type localities.—Puerto Rico. Of *aruensis*, "Iles Arou, Wokan," New Guinea; of *fauveli*, Amazons; of *laevigatus*, Ceylon; of *pallescens*, Honolulu; of *rufescens*, Mobile, Alabama; of *rufus*, same as *exiguus*.

Types.—Possibly in the Zoologische Museum, Berlin. Of *aruensis*, presumably in the collection of Blanche Rancin, Caën, France; of *fauveli*, in the Sharp collection in the British Museum; of *laevigatus*, in the Deutsches Entomologische-Institut, Berlin-Dahlem; of *pallescens*, in the British Museum; of *rufescens*, in the Museum of Comparative Zoology, Cambridge, Massachusetts; of *rufus*, same as *exiguus*.

Records.—The following are the records known to me:

Cuba: Cayamas (Schwarz, in U.S.N.M.), Caimito, province of Habana (Rambousek, in British Museum).
Jamaica: Trinityville (Blackwelder station 428), Milk River (Blackwelder station 415), Santa Cruz (Blackwelder station 421), Spanish Town (Blackwelder station 377), Bath in St. Thomas (Blackwelder station 426B), Troy (Blackwelder station 409), Kingston (Blackwelder station 391).
Hispaniola: DOMINICAN REPUBLIC, Jarabacoa (Darlington, in M.C.Z.).
Puerto Rico: (Erichson, 1840; Lacordaire, 1854; Fauvel, 1865, 1878; Leng and Mutchler, 1914; Wolcott, 1924, 1936), Mayagüez (Blackwelder station 358B).
St. Croix: (Blackwelder station 344).
Guadeloupe: (Fleutiaux and Sallé, 1889; Leng and Mutchler, 1914; A.M.N.H.).
St. Lucia: (Blackwelder stations 208A, 231, 444G).
Grenada: (British Museum).
South America: BRAZIL (Sharp, 1876, 1887).
Central America: GUATEMALA (Sharp, 1887), MEXICO (Fauvel, 1865, 1878; Sharp, 1887; British Museum).
North America: ALABAMA, FLORIDA, INDIANA, LOUISIANA, OHIO (LeConte, 1863, 1877; Fauvel, 1878; Sharp, 1887; Dury, 1902; Blatchley, 1910).
Orient: INDIA (Cameron, 1930), CEYLON (Kraatz, 1859), NEW GUINEA (Fauvel, 1878), HAWAIIAN ISLANDS (Blackburn, 1885), SINGAPORE (Cameron, 1921), SUMATRA (Cameron, 1928).

Specimens examined.—I have examined 16 examples in the United States National Museum, 1 in the Museum of Comparative Zoology, 3 in the American Museum of Natural History, 32 collected by me in 1935–37, and 1 from the West Indies in the British Museum.

Remarks.—The extensive synonymy of this species is undoubtedly due in large measure to the assignment of the genus *Paralispinus* (*Ancaeus*) to the Lispini. It is not unlikely that further synonyms will be discovered when a thorough revision of the group is made.

Lispinus fauveli Sharp (1887) is not the same as the *Holotrochus fauveli* Sharp (1876). The former is the same as *L. tenellus* Erichson. (This was indicated by Sharp on his type, which is labeled "*Lispinus tenellus* Fauv. Type ex coll. Chevrolat. *L. fauveli* mihi Type D. S. Teapa Mex. Chevr."). This specimen is probably not the type of *L. tenellus* Erichson, but it represents at least Fauvel's conception of the species. *H. fauveli* Sharp is the same as *L. exiguus* Erichson, as listed by Bernhauer and Schubert in 1910.

The variety *piceus* Fauvel was recorded from Cuba by Leng and Mutchler under the name *Lispinus piceus*. This is almost certainly an error and probably represents the true *exiguus* only.

This species has been taken flying at dusk, under bark of silk cotton trees, in fungus, and in decaying cocoa pods.

3. PARALISPINUS RULOMUS, new species

Description.—Head and abdomen piceotestaceous, pronotum testaceous, elytra piceous. *Head* broadly rounded in front; longitudinal impressions moderate, not sharply separated from margin; scarcely visibly punctate; feebly strigulose, at places appearing vaguely scaly. *Pronotum* nearly one-fourth wider than long; sides scarcely narrowed from apex to middle, but strongly from middle to base; with foveae at posterior angles; midline vaguely channeled at base; punctures excessively fine; very finely longitudinally strigulose. *Scutellum* smooth, impunctate. *Elytron* with sutural stria feebly impressed; without trace of discal stria; impunctate except for a moderate but broadly impressed puncture at center of disk; longitudinal sculpture feeble, occasionally united, but not scaly. Length, 2 mm.

Type locality.—Jamaica, 12½ miles (by road) from Kingston on road from Gordon Town to Newcastle, parish of St. Andrew.

Types.—Holotype, U.S.N.M. No. 52378, collected February 4, 1937, by Chapin and Blackwelder; two paratypes from Fern Gully and two from Troy.

Records.—The following are the records known to me:

Jamaica: Gordon Town (Blackwelder station 382B), Fern Gully (Blackwelder station 374), Troy (Blackwelder station 409)

Specimens examined.—I have seen only the five types.

Remarks.—Although this species is distinguished most readily from *exiguus* by its color pattern, it differs also in the shape of the pronotum and the much narrower body. Inasmuch as I find very little variation in these characters and in the color of *exiguus*, I believe this will prove to be distinct, and I therefore give it a name even at the risk of making another synonym of *exiguus*.

The type was taken under bark at an elevation of about 2,500 feet, and the others were caught flying at dusk.

4. PARALISPINUS CREPUSCULUS, new species

Description.—Rufotestaceous throughout. *Head* moderately truncate in front; depressions unusually long, moderately well marked, feebly separated from the margin in front; finely punctate, punctures separated by two to four times their diameter, sparser anteriorly; antennae unusually thick, segments 4 to 11 distinctly transverse; with very fine and indistinct ground sculpture, at times appearing scaly. *Pronotum* only one-fifteenth wider than long, narrowed from apex to base, scarcely at all emarginate near base; sides impressed only feebly at the posterior angles; disk moderately finely punctate, punctures slightly elongate, separated by one to three times their length; with fine longitudinal sculpture, sometimes with an obsolete scaly sculpture. *Scutellum* obsoletely scaly. *Elytron* with sutural stria irregularly and poorly defined; without trace of discal stria; impunctate or with excessively fine sparse punctulae, and a single large puncture near middle of disk; ground sculpture very fine, longitudinal, but occasionally uniting. Length, 3 mm.

Type locality.—St. Lucia, DuBoulay Estate in St. Remy district, 3 miles southeast of Soufrière.

Types.—Holotype, U.S.N.M. No. 52377, collected by me on May 6, 1936; and seven paratypes from the localities listed below.

Records.—The following are the records known to me:

Cuba: Cayamas (Schwarz, in U.S.N.M.).
Jamaica: Milk River (Blackwelder station 415), Trinityville (Blackwelder station 428).
Puerto Rico: Fajardo (Busck, in U.S.N.M.).
St. Lucia: (Blackwelder station 220F).
Trinidad: Sangre Grande (Blackwelder stations 99, 100B).

Specimens examined.—I have seen two specimens in the United States National Museum and six collected by me in 1935–37.

Remarks.—This species is very similar to *exiguus* but differs constantly by the characters mentioned in the key. It is larger and has a constant and distinct facies.

With one exception only one example was collected at each locality. My specimens were caught flying, except one which was in a lot from fungus.

5. PARALISPINUS PUNCTATUS, new species

Description.—Head rufopiceous, pronotum rufous, elytra rufous with apical half or third indefinitely picescent, abdomen rufous with apex picescent. *Head* rounded in front; with depressions moderately large but not clearly delimited; with sparse moderate punctures posteriorly; with feeble ground sculpture, rather transverse in front. *Pronotum* over one-third wider than long; sides feebly rounded in front, very distinctly emarginate in posterior two-fifths; depressions near posterior angles extending about to middle; midline very feebly canaliculate at basal third; with distinct and rather coarse punctures generally separated by two to three times their diameter; with very feeble pseudo-scaly ground sculpture. *Scutellum* with a few punctures and ground sculpture. *Elytra* with sutural band scarcely set off from disk; without trace of discal stria; with coarse but very shallow punctures separated by about three times their diameter on the disk; with distinct pseudo-scaly ground sculpture. Length, 3 to 3½ mm.

Type locality.—Puerto Rico, El Yunque, elevation about 3,000 feet.

Types.—Holotype and five paratypes in the Museum of Comparative Zoology; five paratypes in the United States National Museum (No. 52537); collected by Dr. P. J. Darlington in May 1938.

Records.—The following is the only record known to me:

Puerto Rico: El Yunque (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the 11 types.

Remarks.—This species is quite distinct from all others by its distinct punctures. It seems to be a true *Paralispinus*, however, by all structural characters. I have received no record of its habits.

XXI. Genus LEPTOCHIRUS Germar

Leptochirus GERMAR, 1824, p. 35.
Leptocheirus STEPHENS, 1829, p. 297 (misspelling).
Subgenus *Mesochirus* BERNHAUER, 1903, p. 120.
Subgenus *Strongylochirus* BERNHAUER, 1903, p. 120.
Subgenus *Tropiochirus* BERNHAUER, 1903, p. 120.

Genotypes.—*L. scoriaceus* Germar (monobasic). Of *Mesochirus*, *Leptochirus* (*Mesochirus*) *maxillosus* (Fabricius) (designated here); of *Strongylochirus*, *Leptochirus* (*Strongylochirus*) *laevis* Laporte (designated here); of *Tropiochirus*, *Leptochirus* (*Tropiochirus*) *proteus* Fauvel (designated here).

Diagnosis.—Head subquadrate; gular sutures confluent behind the gular pits; antennae not longer than the head and pronotum; mandibles multidentate; all palpi filiform; pronotum quadrate; anterior coxal cavities small and posterior, separated by a conspicuous process of the prosternum and closed behind by the ventral extensions of the posterior margin of the pronotum; anterior coxae globose, not prominent; processes of the mesosternum and the metasternum meeting midway between the middle coxal cavities; abdomen not margined (entirely without paratergites), cylindrical; sternites of first and second segments not present; anterior tibiae serrate; posterior coxae "transverse" (feebly expanded laterally and caudally under the femora).

Remarks.—This is one of the six genera reported from Trinidad (and South America) but not from the true West Indies. Our single species belongs to the subgenus *Mesochirus* of Bernhauer, which is characterized by having the prosternum prolonged between the front coxae in a process at most as wide as long, and having the clypeal area at an abrupt angle with the vertex and set off by the projecting margin of the latter.

1. LEPTOCHIRUS MAXILLOSUS (Fabricius)

Oucujus maxillosus FABRICIUS, 1801, p. 93.—ERICHSON, 1840, p. 825.—LACORDAIRE, 1854, p. 126.—FAUVEL, 1865, p. 19.—SHARP, 1887, pp. 734, 735.

Leptochirus maxillosus (Fabricius) LACORDAIRE, 1854, p. 126.—MOTSCHULSKY, 1857, pp. 501, 502.—FAUVEL, 1865, pp. 13, 15, 17, 18, 19.—SHARP, 1876, p. 422; 1887, pp. 734, 735.—HELLER, 1898, pp. 6, 9.—BERNHAUER, 1903, pp. 119, 124, 131, 157.—BERNHAUER and SCHUBERT, 1910, p. 14.—LENG and MUTCHLER, 1914, p. 403.—BERNHAUER, 1917b, p. 47.—PLAVILSTSCHIKOV, 1929, p. 29.—SCHEERPELTZ, 1933, p. 1000. (Not of Erichson, 1840, p. 825.)

Leptochirus bicolor LUCAS, 1857, p. 5 (as new species).—HELLER, 1898, pp. 6, 9 (as variety of *L. maxillosus.*)—BERNHAUER, 1903, pp. 124, 157 (as aberration of *L. maxillosus*).—BERNHAUER and SCHUBERT, 1910, p. 14.—SCHEERPELTZ, 1933, p. 1000.

Leptochirus bolivianus HELLER, 1898, pp. 6, 9 (as variety of *L. maxillosus*).—BERNHAUER, 1903, pp. 124, 157 (as aberration of *L. maxillosus*).—BERNHAUER and SCHUBERT, 1910, p. 14.—PLAVILSTSCHIKOV, 1929, p. 29.

Leptochirus collaris FAUVEL, 1902a, p. 17 (as variety of *L. maxillosus*).—BERNHAUER and SCHUBERT, 1910, p. 14.

Leptochirus anthracinus FAUVEL, 1902, p. 17 (as variety of *L. maxillosus*).—BERNHAUER and SCHUBERT, 1910, p. 14.

Description.—Piceous, pronotum bright red (base of elytra indistinctly reddish). *Head* with a very feebly impressed midline; projecting anterior margin separated from vertex by a barely visible biarcuate line; each mandible with a large upper tooth (molar tooth of authors) near apex and a small obtusely angular prominence near base, beneath with a large tooth near apex (more or less bifid on left one) and a small tooth behind the large one (less prominent on left mandible); hypostomal lobe[9] broadly rounded, a little longer than wide. *Pronotum* with sides parallel, apex emarginate, base arcuate with middle third slightly extended posteriorly; as wide as long; surface not depressed at middle but deeply grooved along midline. *Integuments* shining, glabrous except for sides and venter of abdomen. Length, 9 to 10 mm.

Type locality.—"America meridionali." Of *bicolor*, "De Goyaz o Cuyaba"; of *bolivianus*, not mentioned; of *collaris*, "Antilles; Trinidad; Bresil; Colombie; Bolivie; Perou"; of *anthracinus*, "Mexique; Honduras; Nicaragua; Perou".

Types.—Presumably in the collection of O. R. Sehested and N. T. Lund in the Zoologische Museum, Copenhagen. Of *bicolor*, presumably in Muséum Nationale d'Histoire Naturelle, Paris; of *bolivianus*, unknown; of *collaris* and *anthracinus*, probably in the collection of Blanche Rancin, Caën, France.

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[9] The hypostomal lobe is the projection of the ventral surface of the head between the maxillary articulation and the ventral mandibular articulation. (See Blackwelder, 1936, p. 10, fig. 1A, 1936.)

Records.—The following are the records known to me:

Trinidad: (Leng and Mutchler, 1914; British Museum; Busck, in U.S.N.M.; Fauvel, 1902, as *collaris*), Mt. Tucuche (Darlington, in M.C.Z. and U.S.N.M.).

South America: (Fabricius, 1801), BRAZIL (Lucas, 1857, as *bicolor;* Fauvel, 1865; Sharp, 1876, 1887; Heller, 1898; Fauvel, 1902, as *anthracinus* and *collaris;* Bernhauer, 1903), GUIANA (Fauvel, 1865), VENEZUELA (Bernhauer, 1903), COLOMBIA (Fauvel, 1865; Sharp, 1887; Fauvel, 1902, as *collaris;* Bernhauer, 1903), BOLIVIA (Heller, 1898, as *bolivianus;* Fauvel, 1902, as *collaris*), PERU (Fauvel, 1902, as *anthracinus* and *collaris;* Plavilstschikov, 1929, as *bolivianus;* British Museum), ARGENTINA (Scheerpeltz, 1933).

Central America: NICARAGUA (Sharp, 1887; Fauvel, 1902, as *anthracinus*), HONDURAS (Fauvel, 1902, as *anthracinus*), BRITISH HONDURAS (Sharp, 1887), MEXICO (Fauvel, 1865; Sharp, 1887; Fauvel, 1902, as *anthracinus*).

Specimens examined.—I have seen 10 examples in the British Museum, 6 from the Museum of Comparative Zoology, and 6 in the United States National Museum.

Remarks.—At the present time I believe it is impossible to distinguish the four varieties that have been named. Further study, especially of series from southern South America, may modify this opinion, but the specimens I have examined all appear to be typical *maxillosus.* The variations in color have not been demonstrated to be more than a color phase of irregular occurrence.

I cannot find any record of the habits of this species.

XXII. NEOTROCHUS, new genus

Genotype.—*Holotrochus cylindrus* Erichson=*Neotrochus cylindrus* (Erichson) (designated here).

Diagnosis.—Body elongate, cylindrical; smooth, shining, glabrous; head not margined or impressed; distal antennal segments transverse; labrum transverse, subtruncate anteriorly; mandibles short, unarmed, or with one or two blunt teeth on upper edge; fourth segment of maxillary palpus conical, as long as first three together; mentum not transverse; gular sutures united; prosternum very narrowly produced between anterior coxal cavities, well below the coxae; anterior coxal cavities open behind, coxae short but exserted, with transverse sulcus on anterior face; middle coxal cavities separated by union of mesosternal and metasternal processes; mesosternum distinctly carinate; metasternum generally punctate; abdomen not margined; first and second sternites absent, third carinate at middle; apical abdominal segments differing in the two sexes; tarsi five-segmented; tibiae not greatly expanded and bearing at most a few small spinules.

Remarks.—Like other genera in this tribe, this genus does not differ from *Holotrochus* in striking structural characters. It is, however, at least as valid as *Holotrochus* and has a rather distinct facies.

It seems to me that *Neotrochus* is insufficiently separated from *Osorius* and will, if additional characters are not found to distinguish them, be reduced to the rank of subgenus. On the other hand, both *Holotrochus* and *Paralispinus* are sufficiently distinct generically from *Osorius*.

In this genus I can place definitely only the four species from the West Indies. Of the numerous other species assigned to *Holotrochus* some will undoubtedly be transferred to *Neotrochus*. This is indicated by the descriptions of several Central and South American species, but I am unable to make the necessary investigations at this time.

I have examined 130 specimens belonging to four species, of which one is new.

KEY TO WEST INDIAN SPECIES OF NEOTROCHUS

1. Pronotum with minute ground sculpture------------------------ 4. smithi
   Pronotum without ground sculpture on disk--------------------------- 2
2. Elytra sparsely punctate; coriaceous---------------------------- 1. minor
   Elytra not at all punctate; coriaceous-------------------------------- 3
3. Pronotum distinctly wider than long; over 3 mm. in length------ 3. cylindrus
   Pronotum scarcely at all wider than long; length 3 mm. or less- 2. trinitatis

1. NEOTROCHUS MINOR (Fauvel)

Holotrochus minor FAUVEL, 1863, p. 437.—BERNHAUER and SCHUBERT, 1911, p. 142.—CAMERON, 1913, p. 325.—LENG and MUTCHLER, 1914, p. 404. (Not LECONTE, 1877.)

Description.—Piceous to rufopiceous. *Head* with moderate and very abrupt punctures separated by two to four times their diameter; without ground sculpture; antennae with segments 7 to 10 transverse; labrum over three times as wide as long, not rounded in front. *Pronotum* one-fifth wider than long; sides arcuate, widest at anterior third; with only a trace of depressions at posterior angles; with abrupt rather coarse punctures, separated by one to three times their diameter; without ground sculpture. *Elytra* scarcely wider than pronotum, only a trifle wider than long; rather coarsely but irregularly punctate, punctures separated by one to three times their diameter; slightly coriaceous but without ground sculpture. *Metasternum* irregularly punctate. *Abdomen* with very large but very shallow punctures and scaly ground sculpture. *Male*, eighth sternite broadly and feebly lobed posteriorly; ninth sternite narrow, broadly truncate, narrowly separating the lateral plates which are broadly triangular; ninth tergite truncate and bordered with slender setae. *Female*, eighth sternite strongly lobed posteriorly; ninth sternite entirely absent; ninth tergite truncate and bordered with slender setae. Length, 2½ to 3 mm.

Type locality.—"Colombia (Caracas), Salle; Cuba, D. F. Poey" (=Venezuela and Cuba).

Types.—Presumably in the collection of Blanche Rancin, Caën, France.

Records.—The following are the records known to me:

Cuba: (Fauvel, 1863; Leng and Mutchler, 1914), Cayamas (Schwarz, in U.S.N.M.), Soledad (Darlington, in M.C.Z. and U.S.N.M.).

Jamaica: Trinityville (Blackwelder station 428), Spanish Town (Blackwelder station 377), Milk River (Blackwelder station 415), Santa Cruz (Blackwelder station 421), Troy (Blackwelder station 409), Morant Bay (Blackwelder station 390).

Grenada: (British Museum).

Trinidad: Port of Spain (Blackwelder station 115), Nariva Swamp (Weber, in M.C.Z. and U.S.N.M.).

South America: BRAZIL (British Museum), VENEZUELA (Fauvel, 1863).

Specimens examined.—I have examined 2 specimens in the British Museum, 4 from the Museum of Comparative Zoology, 5 in the United States National Museum, and 18 collected by me in 1935–37.

Remarks.—This species evidently is somewhat variable, but the West Indian examples seem to be the same as the Brazilian one in the British Museum. It is therefore quite possible that Fauvel's examples from "Colombia" and Cuba were the same species and that it is rather widespread in tropical America.

Fauvel's description of the pronotal punctation differs somewhat from what I have observed in these specimens. He says, "ponctuation presque en ligne, bien visible et serrée, égale."

My specimens were all collected flying at dusk.

2. NEOTROCHUS TRINITATIS, new species

Description.—Piceous. *Head* with moderately small punctures mixed with minute punctulae and separated by two to three times their diameter; with distinct ground sculpture in front; antennal segments 6 to 10 transverse; labrum twice as wide as long, rounded in front; left mandible with one, and right mandible with two blunt teeth on upper inner edge near apical third. *Pronotum* scarcely at all wider than long, about one-sixth wider than head; sides evenly arcuate; widest near middle; with hardly a trace of basal lateral impressions; disk with moderate punctures separated by one to three times their diameter, and with a few minute punctulae; without ground sculpture. *Elytra* one-eighth wider than pronotum, one-sixteenth wider than long; sides nearly straight; outer apical angles narrowly rounded; coarsely coriaceous but not distinctly punctate. *Metasternum* not punctate. *Abdomen* with very sparse moderate punctures obscured by very irregular ground sculpture; eighth sternite moderately lobed; ninth sternite not visible; ninth tergite rounded but with blunt tubercles on each side of apex. *Sexes* not distinguished in the present material (it appears to be all female). Length, 2¼ to 3 mm.

Type locality.—Trinidad, Mayaro Bay.

Types.—Holotype and 16 paratypes in the Museum of Comparative Zoology, collected by N. A. Weber in 1935; also 8 paratypes in the United States National Museum (No. 52491).

Records.—The following are the records known to me:

Trinidad: Mayaro Bay (Weber, in M.C.Z. and U.S.N.M.), La Ortinola Estate in Maracas Valley (Weber, in M.C.Z. and U.S.N.M.), Melajo (Weber, in M.C.Z.), Tunapuna (Weber, in M.C.Z.), Rio Claro (Weber, in M.C.Z.), Galeota Point (Weber, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the 25 types.

Remarks.—This species is not strongly distinguished from *cylindrus* but can be readily separated when specimens of both are at hand. *N. minor* is readily distinguishable by its coarse pronotal punctures, and *smithi* is easily told by its pronotal ground sculpture.

I have received no record of the habits of this species.

3. NEOTROCHUS CYLINDRUS (Erichson)

Holotrochus cylindrus Erichson, 1840, p. 758.—Lacordaire, 1854, p. 113.—Sharp, 1887, p. 684.—Bernhauer and Schubert, 1911, p. 142.—Cameron, 1913b, p. 325.—Leng and Mutchler, 1914, p. 404.

Holotrochus cylindricus Wolcott, 1924, p. 78; 1936, p. 196 (misspelling).

Description.—Piceous. *Head* with moderate punctures separated by 2 to 4 times their diameter; with feeble ground sculpture in front; antennal segments 6 to 10 transverse; labrum twice as wide as long, arcuate in front. *Pronotum* one-fifth wider than long, one-fourth wider than head; sides evenly arcuate; widest near middle; with only a trace of basal lateral depressions; disk with irregular punctures, some coarse and some fine, rather sparsely arranged; without definite ground sculpture. *Elytra* one-twentieth wider than pronotum, about as long as wide, sides nearly straight, outer apical angles narrowly rounded; rather coarsely coriaceous but impunctate. *Metasternum* smooth, not distinctly punctate. *Abdomen* very minutely punctate and slightly coriaceous; eighth sternite strongly lobed; ninth sternite not present; ninth tergite truncate, angles feebly tuberculate. *Sexes* not distinguished in the present material (it appears to be all females). Length, 2½ mm.

Type locality.—Puerto Rico.

Types.—Either in Hope Museum, Oxford, or in the Zoologische Museum, Berlin.

Records.—The following are the records known to me:

Puerto Rico: (Erichson, 1840; Lacordaire, 1854; Leng and Mutchler, 1914; Wolcott, 1924, 1936).

Grenada: (British Museum).

Trinidad: Point Radix, Mayaro Bay (Weber, in M.C.Z. and U.S.N.M.), Basin Hill Forest near Flanagin Town (Weber, in M.C.Z. and U.S.N.M.), base of Galeota Point (Weber, in M.C Z. and U.S.N.M.), Guepo Bay (Weber, in MC.Z.).

Specimens examined.—I have seen only the one female example in the British Museum, which I was permitted to borrow for further study. (See also below.)

Remarks.—There is a distinct possibility that *smithi* is a synonym of this as mentioned under that species. This specimen appears to fit Erichson's description and is at present the basis of our conception of the genus.

Since the above was written I have seen a series of 11 examples from 5 localities in Trinidad which seem to belong to this species. I am not now able to compare them with the British Museum specimens, but I find that they fit the description fairly well. Another series from Trinidad is now described as new.

I find no record of the habits of this species.

4. NEOTROCHUS SMITHI (Cameron)

Holotrochus smithi Cameron, 1913*b*, p. 325.—Leng and Mutchler, 1917, p. 198.—Scheerpeltz, 1933, p. 1131.

Description.—Rufopiceous. *Head* with moderately fine punctures separated by two to four times their diameter; with fine ground sculpture in front; antennal segments 6 to 11 transverse; labrum three times as wide as long, not much rounded in front. *Pronotum* nearly one-fifth wider than long, three-eighths wider than head; sides evenly arcuate, widest at middle; without trace of basal lateral depressions; with rather fine punctures separated by three to five times their diameter; with feeble scaly ground sculpture. *Elytra* equal in width to pronotum, one-tenth wider than long; not punctate but coriaceous. *Metasternum* smooth, impunctate. *Abdomen* with feeble ground sculpture but no distinct punctures. *Male*, eighth sternite feebly lobed posteriorly, ninth sternite narrow but arcuate at apex; lateral plates toothed at apex; ninth tergite truncate, angles toothed. *Female*, eighth sternite rather strongly lobed posteriorly; ninth sternite entirely absent; lateral plates large, triangular, and bluntly toothed at apex; ninth tergite truncate with angles produced in slender teeth. Length, 3½ mm.

Type locality.—St. Vincent, leeward side.

Types.—One specimen labeled type in the British Museum, collected by H. H. Smith.

Records.—The following are the records known to me:

St. Vincent: (Cameron, 1913; Leng and Mutchler, 1917; British Museum).
Trinidad: Aripo Valley (Weber, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen the 12 examples in the type series in the British Museum and have borrowed 1 of these for further study. In addition I have seen a series of 52 specimens from the Museum of Comparative Zoology.

Remarks.—This species is not strongly differentiated from the others but is perhaps a little more readily recognized because of its dull surface.

The Trinidad specimens were taken in a cave (principally near the mouth) at an elevation of 2,600 feet.

XXIII. Genus HOLOTROCHUS Erichson

Holotrochus Erichson, 1840, p. 757.
Olotrochus Duponchel, 1841, p. 57 (misspelling).

Genotype.—*Holotrochus volvulus* Erichson (designated by Duponchel, 1841).

Diagnosis.—Body elongate, subcylindrical, glabrous; head not margined or impressed; distal antennal segments transverse; labrum transverse, broadly rounded; mandibles rather stout, armed with two teeth inwardly; fourth segment of maxillary palpus conical, as long as first three together; mentum hexagonal; gular sutures united; prosternum narrowly produced between anterior coxal cavities but the process is abruptly raised from prosternum or abruptly carinate; anterior coxal cavities open behind; coxae rather prominent, with transverse sulcus on anterior face; middle coxal cavities separated by union of mesosternal and metasternal processes; mesosternum strongly carinate; metasternum impunctate; abdomen not margined; first and second sternites absent, third carinate at middle; apical abdominal segments appearing little different in the two sexes; tarsi 5-segmented; tibiae at most moderately expanded and bearing only a few small spinules.

Remarks.—This genus has apparently been both composite and insufficiently distinguished from *Osorius* since its erection by Erichson. It then included *volvulus* and *cylindrus* from Puerto Rico and *crassicollis* from Madagascar, and it was distinguished from *Osorius* by having the anterior tibiae unarmed and the body glabrous. I do not know *crassicollis*, but I have before me specimens identified in the British Museum as *cylindrus* (which I confirm) and examples from Puerto Rico which I believe to be *volvulus*. On the basis of these specimens I come to the following conclusions: *cylindrus* is distinct (generically) from *volvulus* by the structure of the prosternum, as well as by its more fusiform and depressed shape and its impunctate metasternum; *cylindrus* does not differ markedly from all species of *Osorius* in the character of the front tibia but is always glabrous. It can therefore be separated from *Osorius* (in which the species without the tibial development are pubescent) by a combination of these two characters; *cylindrus* seems to represent more nearly the accepted conception of *Holotrochus*, but *volvulus* was designated as genotype by Duponchel.

Another series of species from the West Indies, which are rather similar to *Lispinus* but which key to *Holotrochus*, are distinguished from all the other Osoriini known to me[10] in lacking the transverse sulcus on the anterior face of the front coxa. These form the genus *Paralispinus* (*Ancaeus*) which is transferred from the Lispini.

I have seen seven specimens, including males and females of each of the two species.

KEY TO WEST INDIAN SPECIES OF HOLOTROCHUS

1. Head and pronotum with ground sculpture........................ 2. volvulus
   Head and pronotum without ground sculpture........................ 1. poundi

1. HOLOTROCHUS POUNDI, new species

Description.—Rufopiceous. *Head* with very fine and sparse punctures, which are generally without a discernible diameter, without ground sculpture; antennal segments 7 to 10 transverse. *Pronotum* two-fifths wider than long, two-fifths wider than head; parallel; without lateral basal depressions; punctures irregular, sparse, denser basally; without ground sculpture. *Prosternum* with raised posterior margin enclosing a short carina on the posterior process. *Elytra* one-ninth wider than pronotum, one-fourth wider than long; somewhat coriaceous, with a very few irregular punctures, rather indistinct; without regular ground sculpture. *Abdomen* with sparse tiny muricate punctures and ground sculpture. *Male*, eighth sternite rather strongly narrowly lobed; ninth narrowly lanceolate; lateral plates longitudinally elevated to prominent spinelike apex; ninth tergite narrowly truncate, angles toothed. *Female*, eighth sternite a little more broadly lobed than in male; ninth sternite not present; lateral plates smaller than in male but similar; ninth tergite a little more broadly truncate than in male. Length, 4 mm.

Type locality.—Trinidad, 5 miles west-southwest of Manzanilla junction, on the Plum Road, county of St. Andrew, ward of Turure.

Types.—Holotype, male, and one paratype, U.S.N.M. No. 52379, collected by me on December 18, 1935.

Records.—The following is the only record known to me:

Trinidad: Manzanilla (Blackwelder station 104B).

Specimens examined.—I have seen only the two types.

Remarks.—This species is readily distinguishable by the absence of ground sculpture. The development of the prosternal elevation is much less pronounced than in *volvulus* but seems to be derived in the same manner.

These specimens were collected from a very rotten log.

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[10] I have examined in this connection *Cylindropsis, Mimogonus, Ouloglene, Oryssomma, Holotrochus, Osorius*, and the new genus *Neotrochus*.

2. HOLOTROCHUS VOLVULUS Erichson

Holotrochus volvulus ERICHSON, 1840, p. 758.—DUPONCHEL, 1841, p. 57.— LACORDAIRE, 1854, p. 113.—SHARP, 1876, p. 387.—BLATCHLEY, 1910, p. 474.—BERNHAUER and SCHUBERT, 1911, p. 143.—LENG and MUTCHLER, 1914, p. 404.

Description.—Rufopiceous to rufous. *Head* with moderately fine punctures separated by 3 to 5 times their diameter but rather obscured by the ground sculpture; antennal segments 6 to 10 transverse. *Pronotum* one-sixth wider than long, nearly one-half wider than head; widest at apical fourth, thence evenly narrowed to base; with a distinct impression above basal angles; apparently impunctate, the small punctures obscured by the strong and dense scaly ground sculpture. *Prosternum* with raised posterior margin prolonged anteriorly at middle in a spatulate lobe over the sternite. *Elytra* one-eighteenth wider than pronotum, as long as wide; with a few large fovealike punctures, occasionally muricate; with fine but distinct ground sculpture. *Abdomen* with ground sculpture and very large but very shallow punctures. *Male*, seventh sternite with large concavity at middle; eighth concave both longitudinally and transversely, apex slightly produced and with tiny tuberculi (as found also on disk of apical ventral segments); ninth narrow, rounded truncate, lateral plates short and convex, bluntly toothed at apex and with a group of long hairs near apex; ninth tergite truncate, but with a rounded flat tubercle at each angle. *Female*, eighth sternite rather strongly lobed, with a few tiny tuberculi; ninth sternite not present, lateral plates as in male; ninth tergite with angles produced in acute teeth, arcuately emarginate between. Length, 5 mm.

Type locality.—Puerto Rico.

Types.—Either in Hope Museum, Oxford, or the Zoologische Museum, Berlin.

Records.—The following are the records known to me:

Puerto Rico: (Erichson, 1840; Lacordaire, 1854; Blatchley, 1910; Leng and Mutchler, 1914), Adjuntas (Oakley, in U.S.N.M.), Ponce (Oakley, in U.S.N.M.), El Yunque (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only three examples collected by R. G. Oakley in Puerto Rico on January 4, 1933, and another pair collected by Dr. P. J. Darlington in May 1938.

Remarks.—I have little doubt that this is the true *volvulus* of Erichson. It is not separable from *Neotrochus* by any characters of the dorsum I have observed. This is the first record of the species since its original description.

Mr. Oakley's specimens were collected in dung and all of them at an elevation of about 3,000 feet.

XXIV. Genus MIMOGONUS Fauvel

Mimogonus FAUVEL, 1903, p. 261.

Genotype.—Osorius fumator Fauvel = *Mimogonus fumator* (Fauvel) (designated here).

Diagnosis.—Body subcylindrical, pubescent; without ocelli; antennae not geniculate; labrum transverse; fourth segment of maxillary palpus strongly conical, twice as long as third; mentum flat, hemioctagonal; submentum transverse; gular sutures united; prosternum prolonged beneath the anterior coxae in a very narrow process; anterior coxal cavities narrowly open behind; anterior coxae large and prominent, with a transverse groove on the anterior face; middle coxal cavities narrowly separated by union of meso- and metasternal processes; metasternum punctate; posterior coxae contiguous, not expanded under the femora; abdomen not margined; first and second sternites absent, third carinate; in male, seventh and eighth sternites with median concavity, ninth obtriangular; in female, eighth sternite lobed, ninth segment apparently with a narrow sternite; tibiae not dilated, spinose but not dentate; tarsi 5-segmented, last segment tumid.

Remarks.—Fauvel erected this genus for eight species of Osoriini of which only three had been described. It is very similar to *Osorius* but is distinguished by its antennae being not geniculate and having the basal segment short, by the scarcely enlarged tibiae with spines but not dentate, and by the emarginate posterior corners of the pronotum.

Only one species is known from the West Indies.

1. MIMOGONUS FUMATOR (Fauvel)

Osorius fumator FAUVEL, 1889, p. 246.—CAMERON, 1930, p. 304.

Mimogonus fumator (Fauvel) FAUVEL, 1903, p. 261.—BERNHAUER, 1910, p. 359.—BERNHAUER and SCHUBERT, 1911, p. 141.—CAMERON, 1921, p. 368, 401; 1923, p. 398; 1928b, p. 108; 1930, p. 304; 1940, pp. 86, 87.—NOTMAN, 1925, p. 3.—SCHEERPELTZ, 1933, p. 1129.

Osorius fauveli CAMERON, 1913b, p. 326.—LENG and MUTCHLER, 1917, p. 198.—CAMERON, 1923, p. 398; 1928, p. 108; 1930, p. 304.—NOTMAN, 1925, p. 3.

Mimogonus fauveli (Cameron) CAMERON, 1913, p. 326; 1923, p. 398.—NOTMAN, 1925, p. 3.—CAMERON, 1928, p. 108.—SCHEERPELTZ, 1933, p. 1129.

Mimogonus fumatior CAMERON, 1921, p. 401 (misspelling).

Description.—Rufopiceous to rufotestaceous, abdomen black. *Head* about three-fourths as wide as pronotum; eyes moderately prominent; clypeus short, truncate, angles not prominent; labrum short, scarcely emarginate, vaguely alutaceous; outer antennal segments wider than long; with rather large dense setigerous punctures, and traces of alutaceous ground sculpture. *Pronotum* about three-tenths wider than long, suddenly narrowed basally, base about five-sixths as wide as apex; sides evenly arcuate in apical two-thirds, then emarginate to base; with elevated impunctate median stripe, not set off by definite series of punctures; with coarse setigerous punctures generally not separated by their diameter; obsoletely alutaceous. *Elytra* a little wider than pronotum, as wide as long, not much enlarged; with coarse but very small setigerous punctures, rather dense but not at all serial, somewhat obscured by the dense but feeble alutaceous ground sculpture. *Abdomen* with only traces of alutaceous ground sculpture; with moderately large but shallow and indistinct setigerous punctures. *Anterior face of front tibia* with a rather indefinite series of setigerous punctures. Length, 2 to 2½ mm.

Type locality.—"New Caledonia, Bourail.—Sumatra." Of *fauveli*, Haiti.

Types.—Presumably in the collection of Blanche Rancin, Caën, France. Of *fauveli*, in the collection of Dr. Cameron.

Records.—The following are the records known to me:

Cuba: (C. Wright, in M.C.Z and U.S.N.M.).

Jamaica: Milk River (Blackwelder station 415), Moneague (Blackwelder station 375), Santa Cruz (Blackwelder station 421), Spanish Town (Blackwelder station 377), Troy (Blackwelder station 409).

Hispaniola: HAITI (Cameron, 1913, as *fauveli;* Leng and Mutchler, 1914; Notman, 1925); DOMINICAN REPUBLIC, Sánchez (Darlington, in M.C.Z.).

Puerto Rico: Juana Diaz (Oakley, in U.S.N.M.), Lajas (Dozier, in U.S.N.M.).

Guadeloupe: (Fauvel, 1903; Bernhauer, 1910).

Central America: MEXICO (Bernhauer, 1910; Notman, 1925; U.S.N.M.).

Africa: MADAGASCAR (Fauvel, 1903; Bernhauer, 1910; Cameron, 1930), SEYCHELLES ISLANDS (Bernhauer and Schubert, 1911).

Orient: BURMA (Fauvel, 1903), CEYLON (Fauvel, 1903), SINGAPORE (Cameron, 1921), INDIA (Bernhauer, 1910; Cameron, 1930), MALAY (Cameron, 1930), SUNDA ISLANDS (Bernhauer, 1910), NEW CALEDONIA (Fauvel, 1889; Cameron, 1930), SUMATRA (Fauvel, 1889; Cameron, 1928, 1930).

Specimens examined.—I have seen 1 example from the West Indies in Dr. Cameron's collection, 3 from the Museum of Comparative Zoology, 7 in the United States National Museum, and 30 collected by Chapin and Blackwelder in February 1937. I have seen also specimens from India, Singapore, and Mexico.

Remarks.—This species could be easily confused with *Osorius*, but it is readily distinguished by the posterior emargination of the sides of the pronotum. This is the only species of the genus known to occur in the Western Hemisphere.

My specimens were all caught flying at dusk; five of the Puerto Rican specimens were intercepted by the Plant Quarantine service at New York "in soil from Puerto Rico."

XXV. Genus OSORIUS Latreille

Osorius Latreille, 1829, p. 438.
Molosoma Say, 1834, p. 462.

Genotype.—*Oxytelus latipes* Gravenhorst=*Osorius latipes* (Gravenhorst) (designated here). Of *Molosoma*, same (monobasic).

Diagnosis.—Body cylindrical, generally pubescent; clypeus not separated from the vertex; labrum transverse; gular sutures united, sometimes obsolete; mentum transverse; maxillary palpus filiform, fourth segment elongate; antennae geniculate; prosternum with a rounded or tuberculate prominence at middle anteriorly; anterior coxal cavities separated by a narrow process of the prosternum which is far below the coxae, narrowly open behind; anterior coxae large, prominent, with a transverse sulcus on the outer face; middle coxal cavities narrowly separated by the union of mesosternal and metasternal processes; posterior coxae contiguous, "transverse," not much expanded under the femora; abdomen not margined (entirely without paratergites); first and second sternites absent; third sternite carinate at middle; tibiae generally much enlarged, dentate, and with many large spinules; tarsi 5-segmented.

Remarks.—Our species of *Osorius* have been studied twice within the past 15 years, but our knowledge of the genus is still so slight that I have prepared another complete revision. This genus is not readily adaptable to presentation in a key, but I have drawn up as good a one as I can at present, taking several characters from Darlington's key. There are several complexes in which the species are very feebly distinguished. These are usually represented by inadequate material, so that the true status cannot yet be determined.

I am adding four new species and correcting four previous misidentifications. I have likewise included one species known only from Trinidad and one known from Trinidad and South America.

A specimen with abdomen missing stands in the British Museum series of *O. ater* Perty from South America. It is labeled "Jamaica" and was received by the Museum in 1845 with the specimen mentioned under *O. hubbardi* Notman. I believe it to be *O. ater* but am very doubtful of the locality.

Osorius fauveli Cameron (1913b, p. 326) belongs in the genus *Mimogonus* and is a synonym of *M. fumator* (Fauvel) as stated by Cameron (1923, p. 398; etc.) and by Scheerpeltz (1933, p. 1129).

I have examined over 425 examples of this genus from the West Indies and a large series of other American species. Of the former 27 were examined in the British Museum, 44 were in the United States National Museum, 30 were borrowed from the Museum of Comparative Zoology, and 363 were collected by me in 1935–37.

KEY TO WEST INDIAN SPECIES OF OSORIUS

1. Anterior margin of clypeus crenulate throughout ---- 2
   Anterior margin of clypeus not crenulate throughout ---- 18
2. Anterior angles of clypeus conspicuously produced ---- 14. biarmatus
   Anterior angles of clypeus not produced ---- 3
3. Abdominal tergites impunctate on disk or with an occasional isolated puncture ---- 4
   Abdominal tergites at least sparsely punctate ---- 8
4. Base of pronotum three-fourths or four-fifths as wide as apex ---- 5
   Base of pronotum nine-tenths as wide as apex ---- 6
5. Anterior margin of clypeus slightly rounded ---- 1. regulus
   Anterior margin of clypeus slightly emarginate ---- 2. darlingtoni
6. Eighth tergite alutaceous ---- 7
   Eighth tergite not alutaceous, coriaceous ---- 5. salutator
7. Eighth tergite "longitudinally alutaceous" ---- 4. fratellus
   Eighth tergite with a dense network of fine lines ---- 3. crenulifrons
8. Labrum with large smooth swollen area anteriorly, separated from alutaceous base by setigerous punctures ---- 6. hirtilabris
   Labrum normal, flat, alutaceous, with marginal setae only ---- 9
9. At least basal tergites of abdomen distinctly alutaceous ---- 10
   Abdominal tergites not more than faintly alutaceous ---- 15
10. Clypeus slightly emarginate in front ---- 11. manni
    Clypeus slightly rounded or sinuate in front ---- 11
11. Anterior face of front tibia with setigerous punctures scattered ---- 12
    Anterior face of front tibia with punctures in a single series ---- 13
12. Pronotum evenly narrowed posteriorly, very distinctly punctate ---- 8. cubensis
    Pronotum suddenly narrowed behind middle; punctures minute and indistinct ---- 9. strictus
13. Pronotum feebly narrowed behind ---- 14
    Pronotum strongly narrowed behind ---- 17. turquinus
14. Pronotum with moderate punctures ---- 15. buscki
    Pronotum with sparse and fine punctulae ---- 16. oriente
15. Anterior face of front tibia with setigerous punctures scattered ---- 16
    Anterior face of front tibia with punctures in a single series ---- 17
16. Clypeus distinctly emarginate at middle, margin coarsely and irregularly crenate; 9½ mm. long ---- 7. daemon
    Clypeus truncate and finely crenate; 7½ mm. long ---- 10. socors
17. Abdominal tergites very sparsely punctate; over 10 mm. long ---- 12. cautis
    Abdominal tergites closely punctate; less than 9 mm. long ---- 13. mediocris
18. Angles of clypeus produced in acute teeth at least one-fourth as long as distance between them ---- 19
    Angles of clypeus not or finely or obtusely denticulate ---- 20
19. Abdominal tergites sparsely punctate; 9½ mm. long ---- 23. hubbardi
    Abdominal tergites closely punctate; 6 mm. long ---- 24. notmani
20. Less than 10 mm. long ---- 21
    Length 12 mm. or over ---- 22. intermedius
21. Length not over 3¾ mm ---- 25
    Length more than 4 mm ---- 22
22. Entire dorsum distinctly alutaceous ---- 20. schwarzi
    At most with head and pronotum strongly, elytra indistinctly, and disk of abdominal tergites vaguely alutaceous ---- 23
23. Clypeus broad, distinctly emarginate ---- 24
    Clypeus narrow, not distinctly emarginate ---- 21. haitiellus

24. Elytra with scattered coarse punctures---------- 18. **latipes**
  Elytra with only three discal series of indefinite coarse punctures- 19. **minor**
25. Pronotum with traces of ground sculpture on disk---------- 26
  Pronotum without trace of ground sculpture on disk---------- 30
26. Clypeus strongly emarginate---------- 32
  Clypeus not or scarcely emarginate---------- 27
27. Clypeus truncate or feebly emarginate---------- 28
  Clypeus strongly produced and rounded---------- 29
28. Alutaceous ground sculpture of head obsolescent throughout--- 27. **eggersi**
  Ground sculpture of head becoming very strong in front---------- 28. **lewisi**
29. Clypeus angulate in front---------- 32. **exalatus**
  Clypeus rounded in front---------- 33. **micropterus**
30. Elytra distinctly and evenly punctate---------- 25. **laeviceps**
  Elytra irregularly and indistinctly punctate---------- 31
31. Punctures of pronotum elongate, impressed, sparse---------- 26. **jamaicensis**
  Punctures of pronotum round, shallow, moderately dense----- 31. **exiguus**
32. Sculpture of head distinct and definite, more or less clearly longitudinal, especially at sides of disk---------- 29. **weberi**
  Sculpture of head vague and indefinite, not clearly longitudinal even at sides---------- 30. **trinitatis**

1. OSORIUS REGULUS Darlington

Osorius regulus Darlington, 1937, pp. 286, 288.

Description.—Castaneous to rufotestaceous. *Head* about nine-tenths as wide as pronotum; eyes small, not at all prominent; anterior margin of clypeus slightly rounded, irregularly crenate, angles not very prominent; labrum distinctly emarginate, alutaceous except on declivity; antennal segments not transverse; surface very finely alutaceous and with tiny punctulae, also a few large punctures on vertex. *Pronotum* strongly narrowed behind, one-fourth wider than long, base three-fourths as wide as apex, sides rather sinuate; side margins very strong near base; with narrow shining midline; with fine punctures almost completely obscured by the dense alutaceous ground sculpture, and a very few larger setigerous punctures. *Elytra* one-tenth narrower than pronotum, nearly one-fifth wider than long, widened apically; humeral margins strongly elevated; with a few setigerous punctures, coriaceous throughout. *Abdomen* feebly alutaceous except at apex, impunctate. *Anterior face of front tibia* with numerous scattered setigerous punctures. Length, 14 to 15 mm.

Type locality.—Southwestern Haiti, Morne La Hotte, 7,000 feet to summit (about 7,800 feet).

Types.—Holotype (M.C.Z. No. 20233) and four paratypes in the Museum of Comparative Zoology; one paratype in the United States National Museum (No. 51249).

Records.—The following is the only record known to me:

Hispaniola: Haiti, Morne La Hotte (Darlington, 1937; U. S. N. M.; A.M.N.H.).

Specimens examined.—I have studied only the paratype in the United States National Museum and another from the Museum of Comparative Zoology.

Remarks.—This is the largest osoriine known from the West Indies and among the largest of the genus. Darlington records that the wings are so reduced as to render the insect flightless.

The types were taken "in thick damp leaf mold, rotting logs, and under other cover in wet cloud forest."

2. OSORIUS DARLINGTONI, new species

Description.—Piceous, frequently rufescent in part. *Head* about nine-elevenths as wide as pronotum; eyes small, not at all prominent; anterior margin of clypeus slightly emarginate, strongly crenate, the angles not prolonged but tuberculate; labrum truncate, alutaceous except on declivity; antennal segments not transverse; surface very distinctly alutaceous, with rather coarse sparse punctulae and a few larger punctures. *Pronotum* strongly narrowed behind, one-tenth broader than long, base four-fifths as wide as apex; sides scarcely sinuate; side margins somewhat expanded just at base; the basal angles prominent; without shining midline; sculptured and punctured as the head. *Elytra* one-tenth narrower than pronotum, about one-eighth wider than long, widest at apical third; humeral margins distinctly elevated; strongly coriaceous and with a very few large setigerous punctures. *Abdomen* distinctly alutaceous throughout. *Anterior face of front tibia* with scattered setigerous punctures. Length, 9 to 10 mm.

Type locality.—Cuba, south side of Pico Turquino, elevation 3,000 to 5,000 feet.

Types.—Holotype and 7 paratypes in the Museum of Comparative Zoology, 6 paratypes in the United States National Museum (No. 52487); collected by Dr. P. J. Darlington in June and July 1936 at the localities listed below.

Records.—The following is the only record known to me:

Cuba: Pico Turquino (Darlington, in M.C.Z. and U.S.N.M.), Upper Ovando River, Oriente (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the 14 types and 2 immature specimens.

Remarks.—This species is most similar to *regulus* but differs in its smaller size, in the emargination of the clypeus, the narrower pronotum, and so on. It represents the extreme development of clypeal crenation in which the crenulae are almost tubercles.

I have received no record of the habits of this species.

3. OSORIUS CRENULIFRONS Notman

Osorius crenulifrons Notman, 1925, pp. 9, 15, 18.—Scheerpeltz, 1933, p. 1133.—Darlington, 1937, pp. 286, 289, 291, 292.

Description.—Rufopiceous. *Head* about five-sixths as wide as pronotum; eyes relatively very prominent; clypeus truncate, very unevenly crenate, angles indefinite; labrum appearing emarginate though straight below the declivity, alutaceous; antennae slender; with sparse fine punctures obscured by the strong dense alutaceous ground sculpture. *Pronotum* about one-fifth wider than long, feebly narrowed posteriorly, base nearly as wide as apex; sides feebly arcuate and sinuate; lateral margin scarcely widened posteriorly; with a vague impression at midline in part; with moderately fine punctures separated by three to four times their diameter, obsoletely alutaceous. *Elytra* barely wider than pronotum, a little longer than wide, sides rather strongly arcuate; coriaceous; impunctate. *Abdomen* alutaceous, scarcely punctate. *Anterior face of front tibia* with scattered setigerous punctures. Length, 9 mm.

Type locality.—Cuba, San Diego (de los Banos, Pinar del Rio Province).

Types.—Holotype, U.S.N.M. No. 26344.

Records.—The following is the only record known to me:

Cuba: San Diego de los Banos (Notman, 1925; Darlington, 1937; U.S.N.M.).

Specimens examined.—I have examined the type, the only specimen known.

Remarks.—This species is very similar to *salutator* of Darlington but may be distinguished by characters noted under that species.

I find no record of its habits.

4. OSORIUS FRATELLUS Darlington

Osorius fratellus Darlington, 1937, pp. 286, 291.

Description.—Piceous, pronotum, and elytra rufescent. *Head* seven-eighths to nine-tenths as wide as pronotum; eyes scarcely at all prominent; clypeus truncate, coarsely crenate, angles not very prominent; labrum very slightly emarginate, alutaceous; antennal segments not transverse; with a few coarse punctures and sparse finer ones obscured by dense alutaceous ground sculpture. *Pronotum* widest at anterior third, moderately narrowed behind, one-fourth wider than long, base nearly as wide as apex; margin moderately expanded near base; with scarcely a trace of midline; with very sparse fine punctures and dense alutaceous ground sculpture. *Elytra* not narrower than pronotum, about as long as wide; narrowed to base and to apex from apical third; humeral margin feeble; with a few large setigerous punctures; coriaceous. *Abdomen* feebly alutaceous; above with only a few tuberculate setigerous punctures. *Anterior face of front tibia* with numerous scattered setigerous punctures. Length, 9 to 10 mm.

Type locality.—Southeastern Haiti, Furcy, La Selle Range, elevation about 5,000 feet.

Types.—Holotype (M.C.Z. No. 20235) and one paratype in the Museum of Comparative Zoology.

Records.—The following are the records known to me:

Hispaniola: HAITI, Furcy (Darlington, 1937), Tardieu (Darlington, 1937).

Specimens examined.—I have seen only the paratype from the Museum of Comparative Zoology.

Remarks.—This species is only feebly distinguished from *salutator*, but I am unable to form an opinion as to its true status for lack of material.

I find no record of its habits.

5. OSORIUS SALUTATOR Darlington

Osorius salutator DARLINGTON, 1937, pp. 286, 290, 291, 292.

Description.—Black. *Head* four-fifths as wide as pronotum; eyes slightly prominent; clypeus truncate, coarsely crenate, angles not very prominent; labrum very slightly emarginate, alutaceous; antennal segments not transverse; with a few coarse punctures and sparse finer ones obscured by dense alutaceous ground sculpture. *Pronotum* widest at anterior third, moderately narrowed behind, one-fourth wider than long, base nearly as wide as apex; margin not greatly expanded near base; with scarcely a trace of midline; with very sparse fine punctures and dense alutaceous ground sculpture. *Elytra* only slightly narrower than pronotum or shorter than wide, narrowed to base and to apex from apical third; humeral margins feeble; with a few large setigerous punctures; coriaceous. *Abdomen* feebly alutaceous except at apex, above with only a few tuberculate setigerous punctures. *Anterior face of front tibia* with numerous scattered setigerous punctures. Length, 10 to 12½ mm.

Type locality.—Southeastern Haiti, La Visité and vicinity, La Selle Range, 5,000 to 7,000 feet elevation.

Types.—Holotype (M.C.Z. No. 20234) and four paratypes in the Museum of Comparative Zoology; one paratype in the United States National Museum (No. 51247).

Records.—The following are the records known to me:

Hispaniola: HAITI, La Visité (Darlington, 1937; M.C.Z.; U.S.N.M.), Mount Basil (Darlington, 1937).

Specimens examined.—I have seen one paratype in the United States National Museum and one paratype and two other specimens from the Museum of Comparative Zoology.

Remarks.—The specimens from Mount Basil in northern Haiti are reported by Darlington to be somewhat different from the types. The sinuation of the sides of the pronotum is not sufficient to make a clear distinction between this and *crenulifrons*, but in the latter the sides at base are less explanate, the hind angles not prominent externally, and the base is not feebly emarginate.

The types were taken "in thick leaf mold in wet cloud forest."

6. OSORIUS HIRTILABRIS Darlington

Osorius hirtilabris DARLINGTON, 1937, pp. 284, 286, 292.

Description.—Piceous. *Head* about nine-tenths as wide as pronotum; eyes very prominent; clypeus truncate, anterior margin crenate (serrately); labrum long, truncate, with rounded angles, alutaceous basally, swollen and shining anteromedially; antennae slender; surface minutely punctulate and finely alutaceous. *Pronotum* one-third wider than long, strongly narrowed behind, base barely three-fourths as wide as apex; sides arcuate anteriorly, sinuate posteriorly; lateral margin much broader basally; without distinct median line; sparsely punctate; with only a trace of ground sculpture. *Elytra* as wide as pronotum, scarcely longer than wide, not much enlarged posteriorly; humeral margin feeble; with a very few large setigerous punctures; coriaceous. *Abdomen* moderately densely punctate, not distinctly alutaceous except at base. *Anterior face of front tibia* with setigerous punctures scattered. Length, 9 to 11 mm.

Type locality.—Southwestern Haiti, "northeastern foothills of the Massif de la Hotte, 2,000–4,000 feet."

Types.—*Holotype* (M.C.Z. No. 20236) and 16 paratypes in the Museum of Comparative Zoology; 2 paratypes in the United States National Museum (No. 51250).

Records.—The following are the records known to me:

Hispaniola: HAITI, Morne La Hotte (Darlington, 1937; M.C.Z.; U.S.N.M.), Miragoane (Darlington, 1937), Kenskoff (Darlington, 1937).

Specimens examined.—I have seen only the two paratypes in the United States National Museum and one from the Museum of Comparative Zoology.

Remarks.—Very distinct by the unusual characters of the labrum. The types were "taken struggling in a pond of flood water in scrubby (formerly rain-forest) country."

7. OSORIUS DAEMON Darlington

Osorius daemon DARLINGTON, 1937, pp. 286, 293.

Description.—Piceous. *Head* scarcely narrower than pronotum; eyes not prominent; clypeus narrow, distinctly emarginate at middle, angles not prominent, margin coarsely and irregularly crenate; labrum emarginate, unusually large, alutaceous; outer antennal segments as broad as long; surface strongly alutaceous, with minute punctures and a few coarse ones. *Pronotum* moderately narrowed behind, one-fifth wider than long, base four-fifths as wide as apex; sides feebly sinuate; lateral margin very little broader basally; without trace of midline; distinctly alutaceous and finely punctulate. *Elytra* about as wide as pronotum, nearly as long as wide; sides feebly arcuate; surface shining but coriaceous, sparsely, irregularly, and rather finely punctate; with a few large setigerous punctures. *Abdomen* feebly alutaceous; moderately closely but not densely punctate, seventh and eighth tergites more closely. *Anterior face of front tibia* with setigerous punctures scattered. Length, 10 mm.

Type locality.—Southwestern Haiti, northwestern foothills of the Massif de la Hotte, elevation 2,000 to 4,000 feet.

Types.—Holotype (M.C.Z. No. 20237) and one paratype in the Museum of Comparative Zoology.

Records.—The following are the records known to me:

Hispaniola: HAITI, Massif de la Hotte (Darlington, 1937), Tardieu (Darlington, 1937).

Specimens examined.—I have seen only the paratype from the Museum of Comparative Zoology.

Remarks.—The clypeus in this species is rather asymmetrical but is quite distinctive. The description is based upon the paratype.

I find no record of the habits of this species.

8. OSORIUS CUBENSIS, new species

Description.—Rufopiceous, pronotum and elytra almost rufous. *Head* four-fifths as wide as pronotum, eyes not very prominent; clypeus feebly rounded, angles evident but not prominent, coarsely crenate; labrum large, emarginate above declivity only, alutaceous; apical antennal segments nearly as wide as long; with sparse moderate punctures and a few large ones obscured by strong alutaceous ground sculpture. *Pronotum* one-sixth wider than long, rather strongly narrowed posteriorly, base eight-ninths as wide as apex; sides arcuate in front, nearly straight behind; lateral margin scarcely widened posteriorly; with a trace of smooth midline; with moderately fine punctures separated by two to four times their diameter; alutaceous only at base. *Elytra* about one-tenth wider than pronotum, one-tenth wider than long, sides feebly rounded; coarsely coriaceous, impunctate. *Abdomen* alutaceous, with moderately dense large submuricate punctures. *Anterior face of front tibia* with a few scattered setigerous punctures. Length, 7 mm.

Type locality.—Cuba, San Antonio de los Banos.

Types.—Holotype, United States National Museum No. 52380, collected by José H. Pazos. (This specimen was the paratype of *O. buscki* recorded by Notman.) Also 10 paratypes from localities listed below, which are deposited in the United States National Museum and the Museum of Comparative Zoology.

Records.—The following are the records known to me:

Cuba: San Antonio de los Banos (Pazos, in U.S.N.M.), Buenos Aires, Trinidad Mountains (Darlington, in M.C.Z. and U.S.N.M.), Rangel Mountains (Darlington, in M.C.Z. and U.S.N.M.), Imias (Darlington, in M.C.Z.), Soledad (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the 11 types.

Remarks.—This species seems to be quite distinct from *buscki* by its rounded clypeus, its less alutaceous pronotum, and its scattered punctures on the anterior tibiae. It was recognized as probably distinct in the National Museum collection by Dr. Chapin.

One additional specimen from Rangel Mountains differs from the others in having the pronotal punctures distinctly coarser. This difference appears to me to be much too slight to warrant separating it specifically, since only the size of the punctures is involved, not arrangement or density or shape.

I have no record of its habits.

9. OSORIUS STRICTUS, new species

Description.—Rufopiceous. *Head* five-sixths as wide as pronotum; the eyes moderately prominent; the clypeus feebly rounded, the angles not prominent, somewhat indistinctly crenate; labrum large, feebly emarginate both above and below the declivity, alutaceous; apical antennal segments nearly as wide as long; with sparse moderate punctures and a few large ones obscured by strong alutaceous ground sculpture. *Pronotum* one-eighth wider than long, rather strongly narrowed behind middle, base seven-eighths as wide as apex; sides distinctly emarginate before basal angles; lateral margin distinctly enlarged and recurved at basal angle; without trace of midline; with fine and shallow punctures separated by three to five times their diameter; feebly alutaceous throughout. *Elytra* very nearly as wide as pronotum, as long as wide; coarsely coriaceous and impunctate except for a few large punctures. *Abdomen* with alutaceous sculpture on each segment but obsolescent at apex of each; with moderately coarse but sparse setigerous punctures, denser apically. *Anterior face of front tibia* with setigerous punctures scattered. Length 8 mm.

Type locality.—Cuba, mountains north of Imias, in eastern Oriente Province, elevation 3,000 to 4,000 feet.

Types.—Holotype, Museum of Comparative Zoology, collected by Dr. P. J. Darlington on July 25–28, 1936.

Records.—The following is the only record known to me:

Cuba: Imias (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the holotype.

Remarks.—This specimen differs from *cubensis* in numerous small details and especially in the shape of the pronotum.

I have received no record of its habits.

10. OSORIUS SOCORS Darlington

Osorius socors DARLINGTON, 1937, pp. 286, 294.

Description.—Piceous. *Head* about four-fifths as wide as pronotum; eyes slightly prominent; clypeus truncate, margin finely crenulate; labrum scarcely emarginate, alutaceous; antennae slender; faintly or not alutaceous except basally, distinctly punctulate; with a few larger punctures at sides. *Pronotum* one-tenth wider than long, slightly narrowed behind, base nine-tenths as wide as apex; sides feebly arcuate; apical angles denticulate; lateral margin only slightly broader basally, with conspicuous smooth midline; not alutaceous but strongly punctulate. *Elytra* as wide as pronotum and as long as wide; sides nearly parallel; with a few large setigerous punctures; coriaceous. *Abdomen* not distinctly alutaceous, finely not densely punctate. *Anterior face of front tibia* with setigerous punctures scattered. Length, 7½ mm. (From Darlington.)

Type locality.—Central Cuba, Central Soledad, near Cienfuegos, Santa Clara Province.

Types.—Holotype in the Museum of Comparative Zoology (No. 21238).

Records.—The following is the only record known to me:

Cuba: Central Soledad (Darlington, 1937).

Specimens examined.—I have seen no examples of this species.

Remarks.—Though separated in the key from *manni*, this species is very similar to it. In fact I think it very unlikely that it can be retained as distinct. The considerable difference in size appears to me to be the only positive character distinguishing them. Since both are represented by unique types, it will be necessary to obtain additional material before a solution can be found, unless a study of the genitalia of this genus reveals usable specific characters. (The type of *manni* is a female.)

"Taken with a Berlese funnel near Harvard House."

11. OSORIUS MANNI Notman

Osorius manni NOTMAN, 1925, pp. 9, 19, 25.—SCHEERPELTZ, 1933, p. 1134.—DARLINGTON, 1937, pp. 286, 294, 295, 296.

Description.—Rufopiceous. *Head* nearly six-sevenths as wide as pronotum; eyes relatively prominent; clypeus wide, truncate and very feebly emarginate, rather finely crenulate; labrum truncate, alutaceous; antenna slender; alutaceous and finely punctulate. *Pronotum* one-fourth wider than long; moderately narrowed posteriorly, base about as wide as apex; sides feebly evenly arcuate except near base; lateral margin scarcely widened posteriorly; without distinct midline; alutaceous and sparsely finely punctate. *Elytra* very slightly wider than pronotum, nearly one-seventh wider than long; coriaceous, with a few large setigerous punctures. *Abdomen* feebly alutaceous except on apical segments; with sparse muricate setigerous punctures especially apically on each segment. *Front tibiae* not known (lost from type). Length, 11 mm.

Type locality.—Cuba, Pinares in Oriente.

Types.—Unique holotype in the United States National Museum (No. 26345).

Records.—The following are the records known to me:

Cuba: Pinares (Notman, 1925; Darlington, 1937; U.S.N.M.), Yunque de Baracoa, Oriente (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the holotype and one example in the Museum of Comparative Zoology.

Remarks.—This species is very similar to *cautis* and *socors* of Darlington. It has been taken only twice.

I find no record of its habits except that Dr. Darlington's specimen was collected at an elevation of 1,000 to 1,800 feet.

12. OSORIUS CAUTIS Darlington

Osorius cautis Darlington, 1937, pp. 286, 295.

Description.—Piceous. *Head* eight-ninths as wide as pronotum; eyes only very slightly prominent; clypeus truncate, anterior margin crenulate, angles slightly prominent; labrum slightly emarginate, alutaceous; antennae slender; alutaceous and finely punctulate, with a few large setigerous punctures. *Pronotum* one-seventh wider than long, moderately narrowed behind; base four-fifths to six-sevenths as wide as apex; sides nearly straight, feebly sinuate; lateral margin broader posteriorly; without distinct midline; finely alutaceous and punctulate. *Elytra* as wide as or slightly wider than pronotum, as long as wide, nearly parallel; surface shining, sparsely punctulate, with a few large setigerous punctures. *Abdomen* not distinctly alutaceous; sparsely punctate above. *Anterior face of front tibia* with a single series of setigerous punctures. Length, 11 to 11½ mm.

Type locality.—Southwestern Haiti, summit of ridge just above Roche Croix, on a northern spur of Morne La Hotte, elevation 5,000 feet.

Types.—Holotype (M.C.Z. No. 20239) and seven paratypes in the Museum of Comparative Zoology; one paratype in the United States

National Museum (No. 51248); and one paratype in the American Museum of Natural History.

Records.—The following are the records known to me:

Hispaniola: HAITI, Roche Croix (Darlington, 1937; M.C.Z.; U.S.N.M.), Morne La Hotte (Darlington, 1937).

Specimens examined.—I have seen only the paratype in the United States National Museum and one from the Museum of Comparative Zoology.

Remarks.—This species differs from *manni* in having the clypeus much narrower, the angles slightly produced, and in having the labrum distinctly emarginate. I am unable to see any distinct difference in the sides of the pronotum, and the differences in the size of the submarginal channels is very slight.

"Taken under various ground cover in wet cloud forest."

13. OSORIUS MEDIOCRIS Darlington

Osorius mediocris DARLINGTON, 1937, pp. 286, 296, 297.

Description.—Piceous to rufopiceous. *Head* six-sevenths as wide as pronotum; eyes rather prominent; clypeus truncate, strongly crenate; labrum not emarginate, alutaceous; antennae with outer segments as wide as long; strongly alutaceous, finely sparsely punctulate, with a few large punctures. *Pronotum* one-tenth to one-seventh wider than long, feebly narrowed behind, base about seven-ninths as wide as apex; sides feebly arcuate; lateral margin somewhat broader basally; without trace of midline; alutaceous, with rather fine punctures. *Elytra* not quite so wide as pronotum, as long as wide, not much expanded; coriaceous, with a few large setigerous punctures. *Abdomen* scarcely visibly alutaceous except basally below; rather finely and closely submuricately punctate. *Anterior face of front tibia* with setigerous punctures in a single series. Length, 8½ mm.

Type locality.—Southeastern Haiti, La Visité and vicinity, La Selle Range, 5,000–7,000 feet elevation.

Types.—Holotype (M.C.Z. No. 20240) and one paratype in the Museum of Comparative Zoology.

Records.—The following is the only record known to me:

Hispaniola: HAITI, La Visité (Darlington, 1937).

Specimens examined.—I have seen only the paratype from the Museum of Comparative Zoology.

Remarks.—Since the removal of the paratype of *buscki* as a new species, the size difference between *mediocris* and *buscki* becomes very great. They differ also in the relative size of the head and the form of the labrum.

I find no record of the habits of this species.

14. OSORIUS BIARMATUS Darlington

Osorius biarmatus DARLINGTON, 1937, pp. 285, 287.

Description.—Black. *Head* as wide as pronotum; eyes not at all prominent; front margin of clypeus feebly crenate, angles conspicuously, acutely, and somewhat divergently produced, margin evenly emarginate between; labrum emarginate, alutaceous; antennae faintly incrassate from the seventh segment; surface coriaceous in front, alutaceous at rear, and with minute punctulae; moderately punctate at sides of vertex and clypeus. *Pronotum* much narrower basally, one-fifth to one-sixth wider than long; apex one-half wider than base; sides distinctly sinuate; margins not enlarged basally; coriaceous and with minute punctulae, but not alutaceous; moderately coarsely, not closely punctate; median stripe impunctate, not well defined. *Elytra* as wide as pronotum, one-twentieth to one-tenth longer than wide, nearly parallel; punctured as pronotum; not alutaceous, but coriaceous. *Abdomen* moderately closely and coarsely punctate; eighth tergite faintly alutaceous. *Anterior face of front tibia* with single series of setigerous punctures. Length, 7½ to 7¾ mm.

Type locality.—Southwestern Haiti, northeastern foothills of the Massif de la Hotte, 2,000 to 4,000 feet elevation.

Types.—Holotype (M.C.Z. No. 20232) and one paratype in the Museum of Comparative Zoology.

Records.—The following is the only record known to me:

Hispaniola: HAITI, Massif de la Hotte (Darlington, 1937).

Specimens examined.—I have seen only the paratype from the Museum of Comparative Zoology.

Remarks.—Darlington records that this species combines characters of the large species with crenate clypeus and the small species with smooth clypeal margin.

I find no mention of its occurrence.

15. OSORIUS BUSCKI Notman

Osorius buscki NOTMAN, 1925, pp. 9, 19, 24.—SCHEERPELTZ, 1933, p. 1132.—DARLINGTON, 1937, p. 286, 297.

Description.—Piceorufous. *Head* just over three-fourths as wide as pronotum; eyes moderately prominent; clypeus rounded, sometimes very feebly biemarginate at the sides, anterior margin strongly crenulate; labrum emarginate, alutaceous; outer antennal segments about as wide as long; alutaceous and sparsely punctulate, with a few larger punctures. *Pronotum* one-seventh wider than long, feebly narrowed behind, base nearly six-sevenths as wide as apex; sides evenly arcuate; lateral margins somewhat wider posteriorly; a vague trace of midline; alutaceous, and with moderate punctures separated by three times their diameter on the disk. *Elytra* about as wide as pronotum, as long as wide, feebly enlarged; coriaceous, impunctate. *Abdomen* alutaceous; with moderate muricate punctures. *Anterior face of front tibia* with a single series of setigerous punctures. Length, 5 mm.

Type locality.—"Santo Domingo" (=Dominican Republic).

Types.—Holotype in the United States National Museum (No. 26346), collected by August Busck. (The recorded paratype is now the type of *O. cubensis* Blackwelder.)

Records.—The following are the records known to me:

Hispaniola: Dominican Republic (Notman, 1925; U.S.N.M.); Haiti, La Visité (Darlington, 1937; A.M.N.H.), Kenskoff (Darlington, 1937).

Specimens examined.—I have seen only the type and one of the specimens collected by Dr. Darlington at La Visité.

Remarks.—The paratype that Notman designated was from Cuba and is believed to be a distinct species. It is herein described as *cubensis* new species. Darlington has collected nine additional specimens of this species in Haiti.

I find no record of its habits.

16. OSORIUS ORIENTE, new species

Description.—Rufopiceous. *Head* thirteen-fourteenths as wide as pronotum; eyes prominent; clypeal margin scarcely arcuate except when viewed from behind, with traces of emarginations near the angles, margin feebly crenate; labrum very feebly emarginate, alutaceous; antennal segments 7 to 10 about as broad as long; with a very few large punctures, minute punctulae obscured by strong alutaceous sculpture. *Pronotum* one-sixth wider than long, moderately narrowed behind, base eleven-fourteenths as wide as apex; sides evenly arcuate, without trace of basal emargination; lateral margins scarcely at all widened posteriorly; without trace of midline; feebly alutaceous, with sparse and fine punctulae. *Elytra* as wide as pronotum, one-seventh longer than wide; coriaceous, impunctate. *Abdomen* alutaceous, more densely on eighth tergite; with moderate submuricate punctures not dense. *Anterior face of front tibia* with a single series of setigerous punctures. Length, 5½ to 7 mm.

Type locality.—Cuba, mountains north of Imias, in eastern Oriente Province, elevation 3,000 to 4,000 feet.

Types.—Holotype and one paratype, Museum of Comparative Zoology, and one paratype in the United States National Museum (No. 52488), collected by Dr. P. J. Darlington on July 25–28, 1936.

Records.—The following is the only record known to me:

Cuba: Imias (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the three types.

Remarks.—This species differs from *buscki* by its fine pronotal punctures, the lack of emargination of the sides basally, the long elytra, and its greater size. It differs from *turquinus* in the shape of the pronotum.

I have received no record of its habits.

17. OSORIUS TURQUINUS, new species

Description.—Piceous to rufopiceous. *Head* eight-ninths as wide as pronotum; eyes not very prominent; clypeus feebly rounded, very feebly emarginate near the angles, which are prominent but not produced, anterior margin rather feebly crenate; labrum very feebly emarginate, alutaceous; antennal segments all longer than wide; with sparse but irregular punctures obscured by strong alutaceous ground sculpture. *Pronotum* one-eighth wider than long, strongly narrowed behind, widest at front, base just two-thirds as wide as apex; sides nearly straight; lateral margins feebly explanate at basal angles; without trace of midline; with rather fine sparse punctures not obscured by feeble alutaceous sculpture. *Elytra* one-sixteenth narrower than pronotum, as long as wide; sides evenly arcuate; with a few rather large but very shallow punctures, scattered; coriaceous. *Abdomen* alutaceous, much more densely on eighth tergite; with rather small but submuricate setigerous punctures, moderately dense. *Anterior face of front tibia* with a single series of setigerous punctures. Length, 8½ to 9 mm.

Type locality.—Cuba, south side of Pico Turquino, elevation 3,000 to 5,000 feet.

Types.—Holotype, Museum of Comparative Zoology, and paratype, United States National Museum (No. 52489), collected by Dr. P. J. Darlington in June 1936.

Records.—The following is the only record known to me:

Cuba: Pico Turquino (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the two types.

Remarks.—This species is very distinct from *buscki* by the shape of the pronotum.

I have received no record of its habits.

18. OSORIUS LATIPES (Gravenhorst)

Oxytelus latipes Gravenhorst, 1806, pp. 183, 184, 196, 198.—Olivier, 1811, p. 616.—Say, 1834, p. 462.—LeConte, 1859, p. 578; 1877, p. 216.

Molosoma latipes (Gravenhorst) Say, 1834, p. 462.—Erichson, 1840, p. 757.—LeConte, 1859, p. 578; 1877, p. 216.

Osorius latipes (Gravenhorst) Erichson, 1840, p. 757.—Lacordaire, 1854, p. 113.—Scriba, 1855, p. 301.—LeConte, 1859, pp. 37, 462.—Summers, 1874, p. 52.—Sharp, 1876, p. 386, 432.—LeConte, 1877, p. 216.—Schwarz, 1878, p. 442.—Dury, 1879, p. 165.—Sharp, 1887, p. 682.—Hamilton, 1895, pp. 327, 357.—Dury, 1902, p. 125.—Blatchley, 1910, p. 473.—Bernhauer and Schubert, 1911, p. 144.—Notman, 1920, p. 699; 1925, pp. 3, 8, 23, 25.—Scheerpeltz, 1933, p. 1134.—Jones, 1935, p. 151.—Darlington, 1937, pp. 287, 299.

Description.—Piceous to rufopiceous, pronotum and elytra generally more rufous. *Head* about six-sevenths as wide as pronotum; eyes scarcely at all prominent; clypeus feebly broadly emarginate, angles somewhat prominent; labrum very short, a little emarginate above declivity, alutaceous; outer antennal segments about as wide as long; with rather coarse punctures especially at sides; obsoletely alutaceous. *Pronotum* one-twelfth wider than long, rather strongly narrowed behind, base three-fourths as wide as apex; lateral margin not at all widened posteriorly; with an impressed midline set off by irregular rows of punctures; with very coarse punctures sometimes united longitudinally, separated transversely by less than twice their width; alutaceous ground sculpture almost completely obsolete. *Elytra* about as wide as pronotum, a little longer than wide, parallel; finely coriaceous; with very coarse and irregular punctures, more or less serial; not alutaceous. *Abdomen* not alutaceous, except vaguely apically; very coarsely but not muricately punctate. *Anterior face of front tibia* with a few very fine scattered setigerous punctures. Length, 4 to 6 mm.

Type locality.—"America septentrionali."

Types.—Presumably in the Zoologische Museum, Berlin.

Records.—The following are the records known to me:

Cuba: Soledad (Darlington, 1937).

North America: Florida, Alabama, Virginia, District of Columbia, Maryland, Pennsylvania, Ohio, Kentucky, Indiana, Iowa, Nebraska, South Dakota, Kansas, Missouri, Arkansas, Texas (Gravenhorst, 1806; Say, 1834; Notman, 1925; Darlington, 1937; etc.).

Specimens examined.—I have examined many examples from North America, but from the West Indies I have seen only the example collected by Dr. Darlington.

Remarks.—The only West Indian specimen known was collected by Dr. Darlington in Cuba. He records that it has the head more strongly alutaceous than is usual in this species. The above description was taken principally from specimens collected near Washington, D. C.

It has been collected in the United States from South Dakota to Texas and from Florida to New England.

This species has been recorded as "burrowing in the ground beneath stones."

19. OSORIUS MINOR Notman

Osorius minor Notman, 1925, pp. 7, 14, 25.—Scheerpeltz, 1933, p. 1134.

Description.—Dark rufopiceous. *Head* nine-tenths as wide as pronotum; eyes moderately prominent; clypeus feebly emarginate in front, angles feebly tuberculate; labrum feebly emarginate above declivity, alutaceous; outer segments of antennae as wide as long; with numerous large punctures; densely strongly alutaceous. *Pronotum* one-ninth wider than long, strongly narrowed posteriorly; base nearly five-sixths as wide as apex; sides feebly arcuate and very slightly sinuate, posterior angles rounded; lateral margin not wider posteriorly; with an impressed middle band set off by serial punctures; with very coarse frequently elongate punctures, generally separated transversely by less than half their width; very obsoletely alutaceous. *Elytra* scarcely wider than pronotum, a little wider than long, not much enlarged posteriorly; with moderately large punctures, frequently serial and somewhat united; coriaceous but not alutaceous. *Abdomen* very vaguely alutaceous; punctures rather large, often submuricate. *Anterior face of front tibia* with a very few scattered setigerous punctures. Length, 4 mm.

Type locality.—Trinidad, ward of Montserrat in the county of Caroni.

Types.—Holotype in the United States National Museum (No. 27330).

Records.—The following are the records known to me:

St. Vincent: (British Museum).
Grenada: (British Museum; Cameron collection).
Trinidad: Montserrat (Notman, 1925, U.S.N.M.).

Specimens examined.—I have seen the unique type in the United States National Museum, 18 examples in the British Museum, and 2 in Dr. Cameron's collection.

Remarks.—This species is similar to *latipes* but is distinct by its strongly alutaceous head. It is possible that this will eventually be found to fall within the ranges of variation and distribution of *latipes*, but at present it is best retained as distinct.

The specimens in the British Museum and in Dr. Cameron's collection were labeled *Osorius parcus* Sharp. *O. minor* differs from the Central American specimens in its smaller size, less distinct elytral punctation, its obsolescent abdominal sculpture, and the less distinctly bidenticulate angles of the clypeus.

I find no record of the habits of this species.

20. OSORIUS SCHWARZI Notman

Osorius schwarzi Notman, 1925, p. 7, 13, 26.—Scheerpeltz, 1933, p. 1136.—Darlington, 1937, pp. 287, 299, 300.

Description.—Black, elytra rufopiceous mediobasally. *Head* about seven-eighths as wide as pronotum; eyes a little prominent; clypeus broadly emarginate in front, angles prominent; labrum scarcely emarginate, even above declivity, alutaceous; antennae slender; with moderately large but not very sparse punctures obscured by very strongly and densely alutaceous ground sculpture. *Pronotum* about one-seventh wider than long, moderately narrowed posteriorly, base three-fourths as wide as apex; sides scarcely but evenly arcuate; hind angles feebly rounded; lateral margins not enlarged posteriorly; without midline except as impunctate band; with very coarse punctures, generally separated by less than twice their diameter; alutaceous. *Elytra* as wide as pronotum, a little longer than wide; sides nearly straight; coriaceous, but with large punctures more or less serial, and moderately distinct alutaceous ground sculpture. *Abdomen* alutaceous; with submuricate punctures. *Anterior face of front tibia* with a few scattered setigerous punctures. Length, 5 mm.

Type locality.—Cuba, Cayamas, about 15 miles west-northwest of Cienfuegos, province of Santa Clara.

Types.—Holotype and two paratypes in the United States National Museum (No. 26334); one paratype in the collection of Howard Notman; one paratype in the Museum of Comparative Zoology.

Records.—The following is the only record known to me:

Cuba: Cayamas (Notman, 1925; Darlington, 1937; U.S.N.M.).

Specimens examined.—I have examined the three types in the United States National Museum.

Remarks.—This species has not been reported since its description. It is rather feebly differentiated from *haitiellus* and *minor.*

I find no record of its habits.

21. OSORIUS HAITIELLUS Darlington

Osorius haitiellus Darlington, 1937, pp. 287, 299, 300.

Description.—Black, elytra in part rufopiceous. *Head* nine-tenths as wide as pronotum; eyes scarcely prominent; clypeus truncate, not crenulate, angles denticulate; labrum not emarginate, declivous in front, alutaceous only at sides; apical antennal segments about as wide as long; impunctate; strongly alutaceous; with setigerous tuberculi at sides. *Pronotum* about as wide as long, moderately narrowed behind, basal angles narrowly rounded, base nearly five-sixths as wide as apex; sides rather sinuate; lateral margin not wider posteriorly; without definite midline; with coarse punctures sometimes united longitudinally, transversely separated by twice their width; alutaceous. *Elytra* about one-twentieth wider than pronotum, one-twentieth longer than wide, sides nearly parallel; rather coarsely and indefinitely but serially punctate; coriaceous. *Abdomen* not alutaceous except feebly at apex; rather coarsely submuricately punctured. *Anterior face of front tibia* with setigerous punctures in a short series. Length, 4½ to 5½ mm.

Type locality.—Southwestern Haiti, "northeastern foothills of the Massif de la Hotte, 2,000–4,000 feet."

Types.—Holotype (M.C.Z. No. 20242) and three paratypes in the Museum of Comparative Zoology; one paratype in the United States National Museum (No. 51246).

Records.—The following are the records known to me:

Cuba: Mountains north of Imias, Oriente (Darlington, in M.C.Z. and U.S.N.M.).
Hispaniola: HAITI, Massif de la Hotte (Darlington, 1937; M.C.Z.; U.S.N.M.)., Tardieu (Darlington, 1937), La Visité (Darlington, 1937), Kenskoff (Darlington, 1937).

Specimens examined.—I have seen only the one paratype in the United States National Museum, one paratype and two other specimens from the Museum of Comparative Zoology.

Remarks.—This species differs from *schwarzi* especially in the denticulate clypeal angles and the single series of punctures on the tibiae.

No record has been made of its habits.

22. OSORIUS INTERMEDIUS Erichson

Osorius intermedius ERICHSON, 1840, p. 754.—LACORDAIRE, 1854, p. 113.—CANDÈZE, 1861, p. 331.—SOLSKY, 1869, p. 265,—VILLADA, 1901, p. 33.—EICHELBAUM, 1909, p. 126.—BERNHAUER and SCHUBERT, 1911, p. 144.—BERNHAUER, 1920b, p. 138.—NOTMAN, 1925, pp. 11, 24, 25.—SCHEERPELTZ, 1933, p. 1134. (Not Cameron, 1928.)

Description.—Black. *Head* eight-ninths as wide as pronotum; clypeus broad, with angles forming rounded obtuse prominences and margin between sinuate; labrum short, alutaceous; antennae slender; with moderately fine punctures throughout; densely alutaceous; with a few tuberculi at sides of clypeus. *Pronotum* two-sevenths wider than long, rather strongly narowed behind, base two-sevenths as wide as apex, sides straight in front, posterior angles obtuse but slightly prominent; lateral margin feebly widened posteriorly; with only a trace of impressed midline; with moderately fine abrupt punctures separated by three to five times their diameter, alutaceous, and with an occasional punctiform depression. *Elytra* scarcely wider than pronotum, a little wider than long, rather broadly rounded at sides; coarsely coriaceous, but with distinct punctiform depressions. *Abdomen* distinctly alutaceous only on apical segments; with a very few large tuberculate punctures. *Anterior face of front tibia* with an irregular series of setigerous punctures. Length, 12–14 mm.

Type locality.—"Columbia interiore."

Types.—Possibly in the Zoologische Museum, Berlin.

Records.—The following are the records known to me:

Trinidad: (British Museum); Manzanilla (Blackwelder station 104B), Mount Tucuche (Darlington, in M.C.Z. and U.S.N.M.), Mount St. Benedict (Weber, in M.C.Z.).

South America: VENEZUELA (British Museum), COLOMBIA (Erichson, 1840; Lacordaire, 1854; Notman, 1925; British Museum).

[**Central America:** COSTA RICA (Notman, 1925), MEXICO (Candèze, 1861).]

Specimens examined.—I have examined four specimens in the British Museum, three from the Museum of Comparative Zoology, and eight collected by me in 1935–37.

Remarks.—The Costa Rican examples recorded by Notman have been examined in the United States National Museum. They differ rather strongly from my specimens in their coarse clypeal punctation, and I believe them to be distinct. My examples seem to agree closely with ones in the British Museum from Colombia and Venezuela.

The larval example recorded from Mexico by Candèze is certainly very doubtfully referable to this species.

I collected these specimens from a very rotten log in a damp situation.

23. OSORIUS HUBBARDI Notman

Osorius hubbardi NOTMAN, 1925, pp. 6, 11, 25.—SCHEERPELTZ, 1933, p. 1134.—DARLINGTON, 1937, pp. 287, 297.

Description.—Piceorufous. *Head* six-sevenths as wide as pronotum; eyes moderately prominent; clypeus broad, angles prolonged in acute processes nearly as long as distance between them, anterior margin not crenulate; labrum emarginate, obsoletely alutaceous; antennae slender; with scattered moderate punctures posteriorly and a few small tubercles anteriorly; strongly and densely alutaceous. *Pronotum* one-sixth wider than long, moderately narrowed posteriorly, base five-sixths as wide as apex; sides rounded but sinuate; lateral margin scarcely widened posteriorly; without distinct midline; with moderate but impressed sparse punctures; alutaceous. *Elytra* one-seventh wider than pronotum, one-tenth wider than long; strongly arcuate at sides; coarsely coriaceous, but with indefinite large punctures. *Abdomen* alutaceous, with large sparse punctures. *Anterior face of front tibia* with a single series of setigerous punctures, but with three or four additional punctures apically. Length, 9½ mm.

Type locality.—Jamaica.

Types.—Holotype in United States National Museum (No. 26331).

Records.—The following are the records known to me:

Jamaica: (Notman, 1925; British Museum; U.S.N.M.).

Specimens examined.—I have seen only the unique type and the specimen mentioned below.

Remarks.—This species has not been reported since its description in 1925. It is distinct by the horned clypeus from all but *notmani*, from which it differs in size and abdominal punctation.

The specimen in the British Museum labeled "*Osorius hubbardi* Nordm." was borrowed and compared directly with the type. It seems to be identical. It was received by the British Museum in 1845 but bears no other data.

I find no record of the habits of this species.

24. OSORIUS NOTMANI Darlington

Osorius notmani Darlington, 1937, pp. 287, 297.

Description.—Piceous or rufous. *Head* about five-sixths as wide as pronotum; eyes not at all prominent; clypeus with angles produced in conspicuous slender teeth about one-fourth as long as the distance between them, each tooth with a denticle at base on inner side, margin not crenulate; labrum scarcely emarginate, alutaceous only at sides, unusually large; apical antennal segments about as wide as long; strongly alutaceous anteriorly, more feebly on vertex; with rather coarse and dense punctures except at front and center. *Pronotum* less than one-tenth wider than long, much narrowed behind, base two-thirds or three-fourths as wide as apex; sides broadly rounded throughout; basal angles broadly rounded; lateral margins not at all enlarged posteriorly; with trace of impressed midline in part; not very distinctly alutaceous; moderately coarsely but not closely punctate; midline impunctate, margined by an irregular series of punctures. *Elytra* about one-tenth narrower than pronotum, as long as wide, slightly expanded; coriaceous and punctured a little more finely and closely than pronotum (but very shallowly). *Abdomen* very feebly and irregularly alutaceous, moderately closely and shallowly punctate except at apex. *Anterior face of front tibia* with setigerous punctures in a single slightly irregular series. Length, 6 mm.

Type locality.—Jamaica, near Blue Mountain Peak, 5,000–7,388 feet elevation.

Types.—Holotype (M.C.Z. No. 20241) and one paratype in the Museum of Comparative Zoology.

Records.—The following is the only record known to me:

Jamaica: Blue Mountain Peak (Darlington, 1937).

Specimens examined.—I have seen only the paratype from the Museum of Comparative Zoology.

Remarks.—This species is also very distinct. It is similar only to *hubbardi* in the structure of the clypeus, but differs from that and other *Osorius* by the rounded basal angles of the pronotum.

I find no record of its habits.

25. OSORIUS LAEVICEPS Notman

Osorius laeviceps NOTMAN, 1925, p. 7, 15, 25.—SCHEERPELTZ, 1933, p. 1134.—DARLINGTON, 1937, pp. 287, 301.

Description.—Piceous, elytra frequently rufescent. *Head* ten-elevenths as wide as pronotum; eyes relatively prominent; clypeus truncate, angles not prominent; labrum truncate, alutaceous; outer antennal segments about as wide as long; very coarsely and densely punctate except at middle; without trace of ground sculpture. *Pronotum* one-tenth wider than long, strongly narrowed posteriorly, base three-fourths as wide as apex; sides feebly sinuate; basal angles rounded; lateral margin not wider posteriorly; with impressed midline outlined by serial punctures; with coarse impressed punctures; generally separated by about their diameter; without trace of ground sculpture. *Elytra* a little wider than pronotum, one-sixth longer than wide, sides moderately arcuate; with coarse shallow punctures generally separated by about their diameter; slightly coriaceous but not alutaceous. *Abdomen* with large shallow dense punctures, not alutaceous. *Anterior face of front tibia* with setigerous punctures in single series. Length, 3¼ to 3¾ mm.

Type locality.—Puerto Rico, San Juan.

Types.—Holotype in American Museum of Natural History.

Records.—The following are the records known to me:

Hispaniola: DOMINICAN REPUBLIC, Sánchez (Darlington, in M.C.Z. and U.S.N.M.).

Puerto Rico: San Juan (Notman, 1925; Darlington, 1937), Adjuntas (Blackwelder station 49), Maricao (Blackwelder station 47A), Mayagüez (Blackwelder station 50B, 50C), El Yunque (Darlington, in M.C.Z. and U.S.N.M.)

Specimens examined.—I have examined the type in the American Museum of Natural History, 28 examples from the Museum of Comparative Zoology, and 40 collected by me in 1935–37.

Remarks.—My specimens have not been directly compared with the type but I believe them to be the same. The above description was taken principally from a specimen from Mayagüez.

Notman records that the type was taken by sifting. My specimens were collected from dung, from rotting cocoa pods, and in quantity from the rotting "fruit" of an imported palmlike tree.

26. OSORIUS JAMAICENSIS, new species

Description.—Piceous, pronotum and elytra rufopiceous. *Head* not distinctly narrower than pronotum; eyes relatively prominent; clypeus truncate, angles not prominent; labrum feebly emarginate above declivity, smooth except at sides; outer antennal segments transverse; with very coarse irregular punctures except on median area; with traces of alutaceous sculpture among the punctures. *Pronotum* scarcely wider than long, moderately narrowed posteriorly, base two-thirds as wide as apex; sides rather evenly rounded, basal angles narrowly rounded; median smooth stripe indefinite; with very large punctures, more or less elongate; feebly alutaceous at sides. *Elytra* as wide as pronotum, about one-sixth longer than wide; not much enlarged posteriorly; with large and more or less serial punctures obscured by strongly coriaceous surface and traces of alutaceous ground sculpture. *Abdomen* only very vaguely alutaceous; moderately and sparsely punctate. *Anterior face of front tibia* with a single series of setigerous punctures. Length, 3¼ mm.

Type locality.—Jamaica, Roaring River Falls, parish of St. Anns.

Types.—Holotype, U.S.N.M. No. 52472, collected on September 13, 1917, by Harold Morrison.

Records.—The following is the only record known to me:

Jamaica: Roaring River Falls (Morrison, in the U.S.N.M.).

Specimens examined.—I have seen only the unique type.

Remarks.—Like others of the small *Osorius* this is not distinguished by striking characters. When large series of all these species are available, it should be possible to evaluate the feeble characters of punctation and sculpture and decide the status of these segregates that we now believe to be species.

I have no record of its habits.

27. OSORIUS EGGERSI Bernhauer

Osorius eggersi BERNHAUER, 1904, p. 19.—BERNHAUER and SCHUBERT, 1911, p. 144.—CAMERON, 1913, p. 326.—LENG and MUTCHLER, 1914, p. 404.—NOTMAN, 1925, pp. 6, 22, 25.—SCHEERPELTZ, 1933, p. 1133.—DARLINGTON, 1937, pp. 287, 298, 299.

Description.—Piceous, pronotum and elytra rufous. *Head* scarcely narrower than pronotum; eyes a little prominent; clypeus truncate, angles not prominent; labrum truncate, smooth except at extreme sides; outer segments of antennae wider than long; with sparse coarse punctures especially at sides; obsoletely alutaceous. *Pronotum* a trifle longer than wide, rather strongly narrowed to base, base two-thirds as wide as apex; sides straight in front, arcuate behind, angles broadly rounded; lateral margin not wider basally; disk with median impunctate stripe bordered by series of large punctures; with coarse punctures, sometimes elongate or uniting longitudinally, separated transversely by about their diameter; with only a trace of alutaceous ground sculpture. *Elytra* nearly one-tenth wider than pronotum, nearly one-sixth longer than wide; expanded but sides straight in front; with coarse shallow punctures, more or less serial; not alutaceous, but coriaceous. *Abdomen* not alutaceous except feebly at apex; moderately coarsely and densely punctate, punctures not muricate. *Anterior face of front tibia* with a single series of small setigerous punctures. Length, 3 to 3½ mm.

Type locality.—"Insula St. Thomas."

Types.—In collection of Dr. Bernhauer.

Records.—The following are the records known to me:

Cuba: Santiago (Notman, 1925; Darlington, 1937; A.M.N.H.).

Jamaica: Montego Bay (Notman, 1925; Darlington, 1937; A.M.N.H.), Trinityville (Blackwelder station 428), Moneague (Blackwelder station 375).

Hispaniola: HAITI, Kenskoff (Darlington, 1937).

Puerto Rico: (U.S.N.M.).

St. Thomas: (Bernhauer, 1904; Leng and Mutchler, 1914; Notman, 1925; Darlington, 1937).

Central America: PANAMA (Notman, 1925; Darlington, 1937; U.S.N.M.).

Specimens examined.—I have seen 10 examples in the United States National Museum and 8 collected by me in 1935–37.

Remarks.—This description was drawn from a specimen from Trinityville, Jamaica. I am unable to distinguish it from examples of *eggersi* from Panama.

My examples were taken flying at dusk.

28. OSORIUS LEWISI, new species

Description.—Piceous, pronotum and elytra more or less pubescent. *Head* one-eighth narrower than pronotum; eyes somewhat prominent; clypeus feebly evenly emarginate, angles tuberculate; labrum very short, emarginate above declivity; outer segments of antennae transverse; with scattered rather coarse shallow punctures obscured by ground sculpture which becomes very strong in front. *Pronotum* one-twelfth broader than long, rather strongly narrowed to base, base three-fifths as wide as apex; sides evenly arcuate, basal angles broadly rounded; lateral margin not wider basally; disk with median impunctate stripe bordered by fairly definite series of punctures; with irregularly spaced and somewhat elongate moderately coarse punctures, separated transversely by more than their diameters; with very dense and fine ground sculpture. *Elytra* one twenty-fourth wider than pronotum, one twenty-fifth longer than wide, feebly expanded with the sides evenly arcuate; with very large shallow punctures more or less serial obscured by coriaceous sculpture. *Abdomen* without distinct alutaceous sculpture except basally, punctures muricate or tuberculate. *Anterior face of front tibia* with a single series of setigerous punctures. Length, 3¾ mm.

Type locality.—Grand Cayman, west end of Georgetown.

Types.—Holotype, Oxford University, collected on April 25, 1938, by C. B. Lewis and G. H. Thompson.

Records.—The following is the only record known to me:

Cayman Islands: GRAND CAYMAN (Lewis, in Oxford University collection).

Specimens examined.—I have seen only the holotype.

Remarks.—This species is very similar to *eggersi.* It differs in the very evident sculpture of the front of the head and the nature of the abdominal punctures.

The type was taken in a light-trap.

29. OSORIUS WEBERI, new species

Description.—Rufocastaneous, head somewhat picescent. *Head* one-seventh narrower than pronotum; eyes a little prominent; clypeus evenly and rather deeply emarginate, the angles prominent; labrum truncate, slightly emarginate above the declivity, smooth except at sides; outer segments of antennae scarcely as long as wide; without distinct punctures but with sparse irregular tubercles basally and behind the antennal ridges, densely and rather coarsely alutaceous. *Pronotum* about one-seventh wider than long, moderately narrowed to base with the sides feebly sinuate throughout; apex one-fourth wider than base; the hind angles moderately rounded; lateral margins not abrupt but distinctly wider basally; disk with median impunctate stripe irregularly outlined and somewhat elevated in basal half; with rather large, usually elongate, but very shallow and irregular punctures, more or less united along median band; with ground sculpture feeble except inside punctures. *Elytra* about as wide as pronotum, one-fifth longer than wide, widest just behind middle but sides straight before and behind; surface very uneven, without distinct punctures but with a few tubercles laterally; with traces of ground sculpture on the coriaceous surface. *Abdomen* with feeble ground sculpture and sparse rather indistinct large punctures. *Anterior face of front tibia* with an indistinct series of setigerous punctures. Length, 4 mm.

Type locality.—Trinidad, 12 miles north of Arima.

Types.—Holotype, Museum of Comparative Zoology, and one paratype, United States National Museum (No. 52490), collected by N. A. Weber on June 23, 1935.

Records.—The following is the only record known to me:

Trinidad: Arima (Weber, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the two types.

Remarks.—This species is readily distinguished from *eggersi* by its shallow pronotal punctures, its larger size, and the more deeply emarginate clypeus.

I have received no record of its habits.

30. OSORIUS TRINITATIS, new species

Description.—Castaneous, head, disk of pronotum, and apical third of elytra picescent. *Head* scarcely narrower than pronotum; eyes a little prominent; clypeus evenly but only moderately deeply emarginate, the angles somewhat prominent but not at all tuberculate; labrum truncate, slightly emarginate above the declivity, with traces of ground sculpture throughout; outer segments of antennae much wider than long; with rather indefinite coarse shallow punctures obscured by very indefinite ground sculpture. *Pronotum* one-sixteenth wider than long, moderately narrowed to base with the sides nearly even and only slightly arcuate; apex about one-third wider than base; the hind angles broadly rounded; margin not distinctly wider basally; disk with median impunctate stripe irregularly outlined, elevated only near base; with moderate and round but irregular and very shallow punctures, not coalescing but somewhat obscured by traces of ground sculpture. *Elytra* one-sixteenth wider than pronotum, one-tenth longer than wide, widest at apical fourth, sides feebly arcuate; surface very uneven, without distinct punctures but with indistinct tubercles throughout, with traces of minute ground sculpture on the coriaceous surface. *Abdomen* with distinct moderate punctures separated by about twice their diameter and somewhat obscured by the indistinct ground sculpture. *Anterior face of front tibia* with a regular series of setigerous punctures placed a little laterally. Length, 3 mm.

Type locality.—Trinidad, 10 miles north of Arima, elevation 1,800 feet.

Types.—Holotype, in Museum of Comparative Zoology, and one paratype, United States National Museum (No. 52501), collected on March 28, 1935, by Dr. N. A. Weber.

Records.—The following is the only record known to me:

Trinidad: Arima (Weber, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the two types.

Remarks.—This species differs from *weberi* very greatly in the sculpture of the head, as well as in size and the shape of the antennal segments.

I have received no record of its habits.

31. OSORIUS EXIGUUS Notman

Osorius exiguus NOTMAN, 1925, pp. 7, 16, 25.—SCHEERPELTZ, 1933, p. 1133.—DARLINGTON, 1937, pp. 287, 300.

Osorius micros NOTMAN, 1925, pp. 7, 22, 25.—DARLINGTON, 1937, pp. 287, 301. (Not Sharp, 1887.)

Description.—Rufopiceous to rufotestaceous. *Head* nine-tenths as wide as pronotum; eyes scarcely at all prominent; clypeus truncate, angles not prominent; labrum short, coarsely alutaceous; outer antennal segments transverse; rather coarsely and densely but very shallowly punctate; not alutaceous. *Pronotum* one-fourteenth wider than long, rather strongly narrowed posteriorly, base five-sevenths as wide as apex, basal angles rounded; with narrow and indefinite median impunctate stripe; with coarse, shallow punctures, generally separated by less than their diameter; not alutaceous. *Elytra* as wide as pronotum, one-fifteenth longer than wide, sides nearly parallel; with very indefinite shallow punctures obscured by coriaceous texture; not distinctly alutaceous. *Abdomen* with moderate but dense punctures; coriaceous but not alutaceous. *Anterior face of front tibia* with an indefinite series of setigerous punctures. Length, 2 mm.

Type locality.—Cuba, Cayamas, about 15 miles west-northwest of Cienfuegos, province of Santa Clara.

Types.—Holotype and one paratype in the United States National Museum (No. 26337).

Records.—The following is the only record known to me:

Cuba: Cayamas (Notman, 1925; U.S.N.M.).

Specimens examined.—I have seen only the two types and possibly a third specimen.

Remarks.—With the types of this species I have associated the specimen that Notman recorded as *O. micros* Sharp. I can find nothing to distinguish it except its length of 3 mm. I have compared this specimen (*micros* of Notman) directly with the type of *micros* Sharp in the British Museum and made the following notes at that time: "It (Notman's specimen) differs in lacking the two discal rows of very strong punctures, and in lacking the dense ground sculpture of the head. The elytra are not so coarsely and irregularly punctured. Pronotum also lacks ground sculpture." The size of the type of *micros* Sharp is 3⅔ mm. *O. micros* Sharp should therefore be removed from our list, and the *O. micros* of Notman should be placed as a synonym of *exiguus* Notman.

I find no record of the habits of this species.

32. OSORIUS EXALATUS, new species

Description.—Rufocastaneous. *Head* as wide as pronotum; eyes very small, scarcely prominent though abrupt; clypeus produced into a lobe, which is broadly semicircular except for a prominent median angulation; labrum large and semicircular, with sparse and feeble scaly ground sculpture; outer segments of antennae wider than long; with fine but scattered punctures and with traces of ground sculpture. *Pronotum* one-fourth wider than long, rather strongly narrowed to base, base two-thirds as wide as apex; sides straight in front, arcuate or sinuate behind, the hind angles rather broadly rounded; lateral margin not abrupt but much wider posteriorly; disk slightly flattened medially in front but midline not smooth; with minute irregular punctures, and with distinct ground sculpture medially. *Elytra* closely appressed to body, almost as wide as pronotum, nearly one-fourth wider than long, scarcely expanded posteriorly; without distinct punctures or sculpture but surface both coarsely and finely coriaceous. *Abdomen* with sparse and rather fine punctures and a few larger muricate punctures; with alutaceous lustre. *Anterior face of front tibia* without visible setigerous punctures. Length, 2½ mm.

Type locality.—Trinidad, Aripo Valley, elevation 2,000 feet.

Types.—Holotype, Museum of Comparative Zoology, collected by N. A. Weber on April 19, 1935.

Records.—The following is the only record known to me:

Trinidad: Aripo Valley (Weber, in M.C.Z.).

Specimens examined.—I have seen only the holotype.

Remarks.—This is another species like *weberi*, which has the elytra small and closely applied to the body. It has the aspect of a subterranean beetle. It is distinct by its labrum and impunctate tibiae from all save *weberi* and *micropterus* and from these by the absence of the medium pronotal groove. It is distinct from *micropterus* further by the shape of the clypeus.

The type was taken in a cave.

33. OSORIUS MICROPTERUS, new species

Description.—Testaceocastaneous. *Head* as wide as pronotum; eyes small, not very prominent though abrupt; clypeus a broad smooth semicircular lobe; labrum broadly rounded, indefinitely sculptured; outer antennal segments broader than long; with sparse and irregular but distinct moderately coarse punctures; with ground sculpture behind the eyes but only very vaguely on the disk. *Pronotum* one-tenth wider than long, strongly narrowed posteriorly, apex nearly one-half wider than base; sides very feebly but regularly arcuate; basal angles scarcely evident; disk rather deeply impressed along midline almost to base, without very distinct punctures but with faint traces of ground sculpture which appears to be in part composed of minute punctulae. *Elytra* closely appressed to body, just wider than the pronotum, not quite as long as wide; feebly enlarged near middle; surface coarsely uneven but without distinct punctures or tubercles on the disk; finely but irregularly coriaceous with traces of ground sculpture. *Abdomen* with isolated shallow punctures; shining along midline but laterally with faint coriaceous ground sculpture. *Anterior face of front tibia* without visible setigerous punctures. Length, 1¾ mm.

Type locality.—Trinidad, Ortoere River, 5 miles southeast of Rio Claro.

Types.—Holotype, Museum of Comparative Zoology, collected by N. A. Weber on January 3, 1935.

Records.—The following is the only record known to me:

Trinidad: Rio Claro (Weber, in M.C.Z.).

Specimens examined.—I have seen only the holotype.

Remarks.—This is the smallest *Osorius* I have seen. It is unusually distinct because of its rounded clypeus and the smooth shining appearance of the integuments under low magnification.

I have received no record of its habits.

Subfamily STYLOPODINAE

This subfamily has been known under the names Megalopinae and Megalopsidiinae, with the type genera *Megalops* and *Megalopsidia*, respectively. The present change of name of the subfamily to agree with that of the type genus (as explained under *Stylopodus*) is not required by the International Rules of Zoological Nomenclature but is in keeping with the interpretation followed by many American taxonomists.

Only one genus has been described in this subfamily, and it is represented in our region by at least six species. It may be readily recognized by its very large and prominent eyes, transversely sulcate pronotum, and shining integuments.

XXVI. Genus STYLOPODUS Benick

Stylopodus Benick, 1917, p. 190 (as subgenus of *Megalops*).
Subgenus *Megalopsidia* Leng, 1918, p. 204 (as new name for *Megalops*).
    Megalops Erichson, 1840, p. 751. (Not Lacepède, 1803.)
    Aulacotrachelus Benick, 1921, p. 1 (as new name for *Megalops*).
Subgenus *Gata*, new name.
    Perostylus Benick, 1917, p. 190. (Not Pilsbry, 1894.)
Subgenus *Megalopsidiella* Bernhauer, 1933, p. 333.

Genotypes.—*Megalops cephalotes* Erichson=*Stylopodus cephalotes* (Erichson) (original designation). Of *Megalops*, *Oxyporus caelatus* Gravenhorst=*Megalops caelata* (Gravenhorst) (designated by Benick, 1917); of *Megalopsidia* and *Aulacotrachelus*, same as of *Megalops*, under section II, f, of Rule 30 of the International Rules of Zoological Nomenclature; of *Perostylus*, *Megalops praedita* Sharp=*Stylopodus* (*Perostylus*) *praeditus* (Sharp) (original designation); of *Gata*, same as of *Perostylus*, under same rule as above; of *Megalopsidiella*, *Megalopsidia ogloblini* Bernhauer=*Stylopodus* (*Megalopsidiella*) *ogloblini* (Bernhauer) (monobasic and original designation).

Diagnosis.—Body in part subcylindrical, glabrous; eyes very large and prominent, antennae 11-segmented, clavate; clypeus feebly separated from vertex, anterior angles toothed; labrum visible only as two slender processes; maxillary palpus filiform, first segment short; mentum oblong; gular sutures strongly converging at base but anterior to pits are more widely separate and parallel; prothorax subcylindrical; pronotum transversely sulcate; prosternum with a transverse row of punctures in front of the coxae; anterior coxal cavities separated by a slender process of the prosternum, half open behind; anterior coxae very small but prominent, without sulcus on anterior face; mesosternum carinate; middle coxal cavities separated by union of mesosternal and metasternal processes; posterior coxae contiguous, small, transverse, not expanded under femora; abdomen margined; first and second sternite absent; third sternite carinate at middle basally; sexes not greatly differing; tibiae unarmed, tarsi 5-segmented.

Remarks.—This is a very distinct genus in regard to a great many characters. I know of no important summary or study of its structure, but the following can be mentioned as being of unusual structure or development: The bicornute labrum, the toothed clypeus, the clavate antennae, the gular sutures, the prosternum and coxal cavities, the mesosternal and metasternal processes, and the fourth tarsomere.

This genus was described by Erichson under the name *Megalops* and was known by that name for 90 years. In 1918 Leng found it to be preoccupied and renamed it *Megalopsidia.* In 1921 Benick came to the same conclusion and offered the new name *Aulacotrachelus*, in apparent ignorance of Leng's proposal. The genus now stands in all recent works as *Megalopsidia* Leng. However, in 1917 Benick proposed simultaneously two new subgenera, *Stylopodus* and *Perostylus.* Nomenclaturally, these must be considered as available names with priority over *Megalopsidia* and all later names. It is therefore necessary to choose one of these two for the name of the genus and leave the other (with *Megalopsidia* and the still later *Megalopisidiella*) as subgenera. Inasmuch as *Perostylus* is itself a homonym, *Stylopodus* is the first available name and must be accepted for this genus. The only name that escapes unchanged from this reorganization is that of the subgenus *Megalopsidiella.*

I know of 6 species from the West Indies and have examined 36 examples from the islands beside a considerable series from South and Central America.

KEY TO WEST INDIAN SPECIES OF STYLOPODUS

1.	Elytra entirely impunctate	2
	Elytra with some punctures	3
2.	Elytra with large testaceous discal area	1. smithi
	Elytra unicolorous, piceocastaneous	2. impressus

3.	Elytra testaceous, at most with margins black	3. **humeralis**
	Elytra black, at most with several testaceous spots	4
4.	Punctures of elytra in a group on disk	5
	Punctures of elytra scattered	6. **rambouseki**
5.	Elytral punctures arranged in two distinct series	5. **punctatus**
	Elytral punctures not arranged in two distinct series	4. **laeviventris**

1. STYLOPODUS SMITHI (Cameron)

Megalops smithi CAMERON, 1913b, p. 328.—LENG and MUTCHLER, 1917, p. 198.
Megalopsidia smithi (Cameron) SCHEERPELTZ, 1933, p. 1143.

Description.—Black, elytra yellow with humeral callus, base, suture, sides, and apical margins narrowly rufopiceous. *Head* with eyes broader than elytra; ninth and tenth segments of antennae transverse; vertex in front with a circular impression enclosing a smooth round central elevation; with another elevation above each eye posteriorly; impressions of vertex not very distinctly punctate; clypeus obtusely produced at center, with prominent projection at lateral angles. *Pronotum* subcylindrical, sides bituberculate in front; as wide as long; with four transverse punctate grooves, the first very feeble along the margin, the second scarcely interrupted at middle but finely punctate, third interrupted at middle by a ridge and more coarsely punctate, fourth along posterior margin not interrupted. *Elytra* one-third wider than pronotum, one-third wider than long; humeral callus prominent but sutural callus absent; sutural stria distinct but disk entirely without impressions or punctures. *Abdomen* impunctate, shining. Length, 3½ mm.

Type locality.—St. Vincent.

Types.—One example labeled type in the British Museum. Eleven other specimens in the same series have the importance if not the actual status of paratypes. Four additional specimens were found in another series in the same collection.

Records.—The following is the only record known to me:

St. Vincent: (Cameron, 1913; British Museum).

Specimens examined.—I have seen only the 16 examples in the British Museum.

Remarks.—This species seems distinct by its entirely smooth and even elytra.

The example I borrowed from the British Museum is labeled "Lot 14, Aprl. 5. 400 ft. Under bark. Shady glen."

2. STYLOPODUS IMPRESSUS (Sharp)

Megalops impressus SHARP, 1876, p. 380; 1887, p. 676.—BERNHAUER and SCHUBERT, 1911, p. 151.

Description.—Black to rufopiceous throughout. *Head* with eyes one-tenth wider than elytra; vertex in front with a circular impression posteriorly and enclosing a smooth rounded elevation; with another elevation above each eye posteriorly; impressions not very distinctly punctate; ninth and tenth antennal segments transverse; clypeus produced at center into an angle which is nearly acute, lateral angles strongly produced. *Pronotum* subcylindrical, one-twelfth wider than long, sides scarcely tuberculate but with prominences; with four strong and deeply punctate transverse grooves, all but the fourth interrupted narrowly at middle; intervals very convex, shining. *Elytra* one-third wider than pronotum, one-fourth wider than long; entirely impunctate, but with a distinct longitudinal impression at middle of disk, abrupt internally, slightly diagonal; sutural stria impressed; humeral callus prominent, but without sutural callus. *Abdomen* impunctate, shining. Length, 3½ to 5 mm.

Type locality.—"Villa Nova," Amazon Valley, Brazil.

Types.—One female in the British Museum.

Records.—The following are the records known to me:

Trinidad: (C. E. Bryant, in British Museum), La Brea (Morrison, in U.S.N.M.).
South America: Brazil (Sharp, 1876, 1887), Bolivia (W. M. Mann, in U.S.N.M.).
Central America: Panama (Sharp, 1887).

Specimens examined.—I have not examined the unique type or Sharp's example from Panama. Specimens before me include one borrowed from the British Museum and two in the United States National Museum.

Remarks.—There is very little difference between the Trinidad and the Bolivia examples. The species is obviously widespread and will undoubtedly be found throughout northern South America.

Sharp records the type from under chips.

3. STYLOPODUS HUMERALIS (Cameron)

Megalops humeralis Cameron, 1913b, p. 327.—Leng and Mutchler, 1917, p. 198.
Megalopsidia humeralis (Cameron) Scheerpeltz, 1933, p. 1142.

Description.—Black, elytra yellow with humeral callus, base, and apex narrowly black. *Head* and antennae much as in *laeviventris*. *Pronotum* a little longer than broad, a little wider in the middle, equally narrowed in front and behind; with sides evenly rounded; narrower than head and elytra; with four coarsely punctate transverse impressions on each side, the first are separated from each other by narrow, smooth space on middle of disk; the second are separated by a broader space bearing a large puncture, the third by a wider impunctate space, the fourth follow the posterior margin and are not interrupted. *Elytra* about as long as pronotum, scarcely transverse; sutural callus, sutural stria, and short punctate stria on disk well marked. *Abdomen* as in *laeviventris*. Length, 4 mm. (From Cameron.)

Type locality.—St. Vincent.

Types.—One specimen labeled type in the British Museum.

Records.—The following is the only record known to me:

St. Vincent: (Cameron, 1913).

Specimens examined.—I have seen only the unique type.

Remarks.—When I examined the type I made a note that the punctate stria on the elytron has three punctures but is entirely lacking on one elytron. This species is similar in coloration to *smithi*, and I regard it as a doubtful species. The length of the "clypeal spines"[11] is of no value whatever, and there appears to be some variability in the impressed punctures of the head and pronotum.

I find no record of its habits.

4. STYLOPODUS LAEVIVENTRIS (Cameron)

Megalops laeviventris Cameron, 1913b, p. 326.—Leng and Mutchler, 1917, p. 198.

Megalopsidia laeviventris (Cameron) Scheerpeltz, 1933, p. 1142.

Description.—Black, shining. *Head* with eyes nearly as wide as elytra; vertex in front with a feeble broad semicircular impression enclosing the anterior end of a large elevation; elevation with two or three punctures impressed in transverse row; with distinct punctures; antennal segments 9 and 10 transverse; clypeus truncate, angles acutely but only moderately produced. *Pronotum* subcylindrical, as long as wide; sides not tuberculate but with prominence at sides anteriorly; with four transverse grooves, first feeble and impunctate, second obsolete except for three or four small depressions on each side, third moderately deep with punctiform depressions laterally, interrupted and deflected at middle, fourth basal, moderate, punctate; intervals moderately convex, shining. *Elytra* nearly one-half wider than pronotum, over one-fifth wider than long; humeral callus moderate; sutural stria impressed; discal group of punctures separated from suture by distinct elevation; group consisting of three or four punctures. *Abdomen* impunctate except feebly on apical segments. Length, 3½ to 4 mm.

Type locality.—St. Vincent. (Cameron records the locality as Grenada but the labeled type is from St. Vincent.)

Types.—One example labeled type in the British Museum. Ten other specimens in the same series have the importance if not the actual rank of paratypes. Three additional specimens are in the same collection.

Records.—The following are the records known to me:

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[11] As later pointed out by Dr. Cameron (1930, p. 315) the so-called clypeal spines are in reality elongate processes of the sides of the labrum.

St. Vincent: (British Museum).
Grenada: (Cameron, 1913; British Museum).

Specimens examined.—I have seen only the 14 examples in the British Museum, of which one was borrowed for further study.

Remarks.—This species seems amply distinct from the other West Indian species. The pronotal grooves are feebler than in any other of our species.

I find no record of its habits.

5. STYLOPODUS PUNCTATUS (Erichson)

Megalops punctatus ERICHSON, 1840, p. 752.—LACORDAIRE, 1854, p. 111, pl. 15, fig. 4.—FAUVEL, 1901, p. 74.—BERNHAUER and SCHUBERT, 1911, p. 151.—CAMERON, 1913, p. 328.—BENICK, 1917, pp. 191, 192.—SCHEERPELTZ, 1933, p. 1143.
Megalopsidia (s. str.) *punctata* (Erichson) SCHEERPELTZ, 1933, p. 1143.

Description.—Piceous, elytra fuscous, sometimes with humeral spot and apical sutural spot testaceous. *Head* with eyes a little narrower than elytra; clypeus truncate but with angles shortly acutely produced and deflected; vertex without linear impressions but with numerous deep coarse punctures; no individual elevations except over base of antennae; ninth and tenth antennal segments transverse, eighth as broad as long. *Pronotum* subcylindrical, sides not tuberculate but with prominences anteriorly; scarcely wider than long; with four feeble transverse punctate impressions, first and third interrupted at middle, second and third deflected posteriorly on disk, punctures coarse, intervals convex, shining. *Elytra* one-third wider than pronotum, nearly three-tenths wider than long; humeral callus feeble; sutural stria impressed; with two rows of four large punctures at center of disk. *Abdomen* impunctate, shining. Length 3½ mm.

Type locality.—Colombia.

Types.—In either the Hope Museum, Oxford, or the Zoologische Museum, Berlin.

Records.—The following are the records known to me:

Trinidad: Moruga (Blackwelder station 111).
Curaçao: (Fauvel, 1901).
South America: BRAZIL (Fauvel, 1901), COLOMBIA (Erichson, 1840; Lacordaire, 1854; Fauvel, 1901).
Central America: MEXICO (Fauvel, 1901).

Specimens examined.—I have seen only two specimens from Trinidad.

Remarks.—I have little doubt of the identification of this species because of the exact agreement with Erichson's description and the ease of separating it in the key.

My specimens were found in decaying cocoa pods.

6. STYLOPODUS RAMBOUSEKI (Bierig)

Megalopsidia ramboușeki Bierig, 1934e, p. 220, pl. 11, figs. 7, 8.
Megalopsidia bierigi Rambousek MS., Bierig, 1934e, p. 220.

Description.—Black, variegated with transparent rufous on most of the elevated parts, elytra with sutural region yellowish and with large ivory-white spot at humeral callus, with same color on posterior half of seventh and following abdominal segments. *Head* with eyes only a little narrower than elytra; vertex with two semielliptical tubercles, oblique and touching or confluent behind; intervals separately and coarsely punctate. *Pronotum* subhexagonal, widest at apical third; sides with blunt denticles and protuberances; of the four bulky elevations, the two approximate anterior ones are clearly hemispherical, the two basal, separated by a protuberance, more enlarged, are obliquely oval, with exterior face subvertical, and almost contiguous to the marginal postlateral protuberances; intervals feebly punctate. *Elytra* a little wider than pronotum; with two oblique postscutellar callosities, the suture simply elevated, flanked by a stria and with a posterior prelateral callus, semicircular from the interior. Length, 4 mm. (From Bierig.)

Type locality.—Cuba.

Types.—In collection of Alexander Bierig.

Records.—The following are the records known to me:

Cuba: Rio Hondo (Bierig, 1934), Sierra Bonilla (Bierig, 1934), Sierra del Rosario (Bierig, 1934).

Specimens examined.—I have seen no examples of this species.

Remarks.—This species is known to me only from Sr. Bierig's description and figures. It seems to me amply distinct from the other West Indian species. It was placed by Bierig in the subgenus *Megalopsidia*.

It was recorded from fungus on tree trunks.

Subfamily STENINAE

Two genera have been described in this subfamily but only one is so far known from the West Indies. Like the preceding it is readily recognized by its large and prominent eyes but differs in having the integuments more densely punctate or rugose, in having the pronotum not transversely sulcate, and in other characters given in the diagnoses.

XXVII. Genus STENUS Latreille

Stenus Latreille, 1796, p. 77.
Nestus Rey, 1883, p. 183.
Subgenus *Hemistenus* Motschulsky, 1860, p. 557.
  Mesostenus Rey, 1883, p. 183 (not Gravenhorst, 1829).
  Parastenus Heyden, 1905, p. 262 (new name for *Mesostenus* Rey).

Subgenus *Hypostenus* REY, 1883, p. 183.
Astenus LYNCH, 1884, p. 341.
Stenosidotus LYNCH, 1884, p. 338.
Areus CASEY, 1884, p. 150.
Subgenus *Tesnus* REY, 1883, p. 183.
Mutinus CASEY, 1884, p. 146.

Genotypes.—Stenus 2-guttatus Fabricius (designated by Latreille, 1810). Of *Nestus*, *Stenus* (*Nestus*) *boops* Ljungh (designated by Tottenham, 1940); of *Hypostenus*, *Stenus* (*Hypostenus*) *kiesenwetteri* Rosenhauer (designated by Tottenham, 1940); of *Astenus*, *Stenus* (*Astenus*) *speculifrons* Fauvel (monobasic); of *Stenosidotus*, *Stenus* (*Stenosidotus*) *aenescens* Lynch (monobasic); of *Hemistenus*, *Stenus* (*Hemistenus*) *pallitarsis* Stephens (designated by Tottenham, 1939); of *Areus*, *Stenus flavicornis* Erichson = *Areus flavicornis* (Erichson) (designated here); of *Mesostenus*, *Stenus* (*Mesostenus*) *impressus* Germar (designated by Tottenham, 1939); of *Parastenus*, *Stenus* (*Parastenus*) *impressus* Germar (by synonymy with *Mesostenus*); of *Tesnus*, *Stenus* (*Tesnus*) *opticus* Gravenhorst (designated by Tottenham, 1940); of *Mutinus*, *Stenus* (*Mutinus*) *dispar* Casey (designated here).

Diagnosis.—Body elongate, cylindrical; labrum transverse, rounded in front; antennae 11-segmented, elongate and slender, more or less clubbed; first segment of maxillary palpus elongate, third large, fourth minute; last segment of labial palpus normal; mentum subquadrate, strongly carinate at middle; gula broad, sutures convergent at middle; anterior coxal cavities confluent, open behind; anterior coxae small but conical and rather prominent; middle coxal cavities narrowly separated by union of mesosternal and metasternal processes; posterior coxae "conical," not expanded laterally because of the proximity of the pleurites; first and second abdominal sternites not sclerotized; third carinate; males with apical segments modified; tarsi 5-segmented.

Remarks.—This very large and widespread genus is readily recognizable by its appearance. The large eyes and the insertion of the antennae into the upper surface of the head near the eyes will distinguish it from all other staphylinids. The genus has been divided into several subgenera, but there is no complete agreement as yet on the characters to be used for this purpose.

I have examined 113 West Indian examples belonging to 20 species of which 15 appear to be new. These belong to at least three of the subgeneric groups listed above.

KEY TO WEST INDIAN SPECIES OF STENUS

1. Abdomen strongly margined 2
Abdomen not distinctly margined 4

2. Punctures of pronotum and elytra strongly and distinctly united in channels, with intervening ridges very distinct .... 2. **chapini**
   Punctures of pronotum and elytra not strongly united in channels, ridges not strong and distinct 3
3. Densely punctate throughout, subopaque .... 3. **rulomus**
   Not densely punctate, shining .... 4. **odius**
4. Fourth segment of anterior tarsus strongly bilobed 5
   Fourth segment not bilobed .... 1. **trinitatis**
5. Head with median smooth space on vertex 6
   Head without median smooth space on vertex 10
6. Punctures of pronotum and elytra coarse and deep, similar to those of head 7
   Punctures of pronotum and elytra fine and scattered, much less coarse than those on head .... 17. **lucens**
7. Abdomen punctured as forebody but less coarsely 8
   Abdomen with relatively fine shallow punctures and strong ground sculpture .... 13. **dyeri**
8. Pronotum tuberculate at sides of base .... 20. **antillensis**
   Pronotum not tuberculate at sides of base 9
9. Head with large and well-defined additional smooth area both at each posterior upper margin of eye and behind each antennal fossa .... 14. **cubanus**
   Head without large and well-defined additional smooth area 17
10. Subopaque; length 2 mm .... 5. **bakeri**
    Shining; length 3 to 5 mm 11
11. Punctures of elytra generally separated by nearly their diameter. .... 6. **jamaicensis**
    Punctures of elytra generally separated by half or less of their diameter 12
12. Punctures of pronotum somewhat serial along midline behind center 13
    Punctures of pronotum not at all serial along midline behind center 14
13. Eighth tergite with dense scaly ground sculpture .... 11. **morrisoni**
    Eighth tergite without distinct scaly ground sculpture .... 12. **bryanti**
14. Pronotum as broad as long .... 10. **mutchleri**
    Pronotum distinctly longer than broad 15
15. Outline of pronotum from above with a distinct postapical protuberance on each side .... 8. **augustinus**
    Outline of pronotum from above not interrupted near apex 16
16. Pronotum much more densely punctate than elytra .... 7. **jugalis**
    Pronotum not much more densely punctate than elytra .... 9. **haitiensis**
17. Median area of head narrow but very distinct and extending throughout length of vertex .... 16. **darlingtoni**
    Median area not extending throughout length of vertex 18
18. Median area very broad, well-defined .... 18. **hispaniolus**
    Median area feeble, ill-defined 19
19. Vertex with a small but distinct depression on each side of midline near center .... 15. **adamsoni**
    Vertex scarcely at all depressed .... 19. **cubensis**

1. STENUS TRINITATIS, new species

Description.—Shining black. *Head* rather deeply concave above between the eyes, with a narrow acute median longitudinal ridge; labrum broadly rounded; with moderately fine irregularly shaped and spaced punctures; without ground sculpture or smooth areas except for the ridge. *Pronotum* with punctures indistinct because of frequent uniting transversely, giving almost a coarsely wrinkled appearance; without ground sculpture; scarcely longer than wide, widest near middle, arcuately narrowed in front with angles obsolete, feebly emarginate behind with the angles obtusely rounded. *Elytra* scarcely longer than broad, nearly one-third wider than pronotum; with humeral callus feeble; punctures larger than those on pronotum, irregularly shaped, less uniting except at the sides; without ground sculpture. *Abdomen* not margined; with shallow punctures finer than on elytra and becoming still finer apically; with indistinct ground sculpture. *Tarsus* with fourth segment not bilobed; posterior tarsus long, first segment longer than fifth. *Male*, all sternites flattened, especially apically, eighth with a narrow excision one-third as wide as apex and twice as long as wide, with apex very narrowly rounded. *Female*, sternites unmodified. Length, 4 mm.

Type locality.—Trinidad, St. Augustine.

Types.—Holotype, male, and two paratypes in the Museum of Comparative Zoology; three paratypes in the United States National Museum (No. 52538); all collected in April 1929 by Dr. P. J. Darlington.

Records.—The following is the only record known to me:

Trinidad: St. Augustine (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the six types.

Remarks.—This species is very distinct by the concavity of the vertex and the nature of the punctation. It is isolated from all other West Indian species by having simple tarsi in conjunction with an unmargined abdomen.

I have received no record of its habits.

2. STENUS CHAPINI, new species

Description.—Shining black. *Head* rather feebly longitudinally impressed between the eyes; labrum broadly rounded; with very coarse and deep punctures separated by less than half their diameter by narrowly convex intervals, no central smooth space; vertex constricted behind; without ground sculpture. *Pronotum* very coarsely feebly punctured, separated by less than their diameter, with occasional intervals lower so that the punctures are somewhat united irregularly; one-sixteenth longer than wide; widest at middle, scarcely narrowed to apex, moderately narrowed to base; without ground sculpture. *Elytra* nearly one-half wider than pronotum, one-tenth wider than long; with humeral callus feeble and a slight impression mesad; punctures as coarse as on pronotum but more frequently and distinctly united in irregular rows; with sparse pubescence. *Abdomen* strongly margined throughout; with moderately large punctures separated by about their diameter by flat intervals; pubescence moderate. *Tarsi* with fourth segment not at all bilobed; posterior tarsi moderately long, first segment about as long as fifth. *Male*, eighth sternite very feebly broadly emarginate. Length, 3 to 3¾ mm.

Type locality.—Jamaica, about 5 miles west of Black River (1½ miles southeast of Scotts Cove).

Types.—Holotype, female, and four paratypes, U.S.N.M. No. 52388, collected by Chapin and Blackwelder on February 24, 1937; and three paratypes, same number, collected by H. G. Hubbard.

Records.—The following are the records known to me:

Jamaica: (Hubbard, in U.S.N.M.), Black River (Blackwelder station 416), Castle Daly in St. Anns (Darlington, in M.C.Z. and U.S.N.M.), Cinchona (Darlington, in M.C.Z. and U.S.N.M.), Whitfield Hall in Blue Mountains (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the eight types in the United States National Museum and seven specimens from the Museum of Comparative Zoology.

Remarks.—This species is distinguished from all others in our region by its dense punctation and rugose appearance on both the elytra and the pronotum as well as by its filiform tarsi.

It was found by Dr. Chapin and me on the damp muddy edge of a small pond.

3. STENUS RULOMUS, new species

Description.—Shining black; unusually flattened above. *Head* feebly longitudinally biimpressed; labrum broadly rounded; with moderately coarse deep punctures irregularly spaced but separated by abrupt intervals which have traces of ground sculpture; without smooth areas. *Pronotum* punctured as the head but intervals more irregular with punctures occasionally partly united with traces of ground sculpture on intervals; as long as wide, widest at middle, feebly narrowed to apex, feebly emarginate to base. *Elytra* one-ninth broader than long, one-fourth wider than pronotum; with humeral callus indistinct; punctured and sculptured similarly to pronotum. *Abdomen* margined throughout; with moderately small punctures separated by about their diameter, the flat intervals with obsolescent sculpture. *Tarsus* with fourth segment not bilobed; posterior tarsus rather short, first segment about as long as fifth. *Male*, sixth sternite just visibly emarginate; seventh with a shallow arcuate emargination in median third, surface depressed before emargination; eighth sternite with an abrupt triangular emargination twice as wide as deep, apex not rounded, sides straight. *Female* unknown. Length, 3 mm.

Type locality.—Bahama Islands, Nassau.

Types.—Holotype, male, in Museum of Comparative Zoology; collector and date unknown.

Records.—The following is the only record known to me:

Bahamas: Nassau (M.C.Z.).

Specimens examined.—I have seen only the unique type.

Remarks.—This species has a very distinct appearance which is due in part to its flattened dorsum. It differs from *odius* by the male characters and from *chapini* by the less tortuous elytral punctures.

I have received no record of its habits.

4. STENUS ODIUS, new species

Description.—Shining black. *Head* rather feebly longitudinally biimpressed between the eyes; labrum rather truncate in front; with very coarse and deep but irregular punctures generally separated by one-half their diameter or less; without distinct smooth spaces; without ground sculpture. *Pronotum* with deep but irregular punctures frequently elongate transversely, the intervals abrupt and irregular; one-eighth longer than wide; widest at middle, moderately narrowed to apex, rather abruptly emarginate behind; without trace of ground sculpture. *Elytra* as wide as long, one-half wider than pronotum; humeral callus feeble; punctures as on pronotum but a little coarser and with intervals somewhat flattened; pubescence rather long. *Abdomen* strongly margined throughout; with rather small punctures separated by their diameter or more by flat intervals; pubescence moderate. *Tarsus* with fourth segment not at all bilobed; posterior tarsus moderately long; first segment nearly as long as fifth. *Male*, seventh tergite feebly emarginate, eighth with a very broad but shallow and completely rounded emargination. *Female*, unknown. Length, 3¾ mm.

Type locality.—Cuba, Soledad near Cienfuegos.

Types.—Holotype, male, in Museum of Comparative Zoology.

Records.—The following is the only record known to me:

Cuba: Soledad (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the unique type.

Remarks.—This species differs from *chapini* in having the pronotal and elytral punctures less uniting and tortuous, and in being much more strongly shining.

I have received no record of its habits.

5. STENUS BAKERI Bernhauer

Stenus bakeri BERNHAUER, 1910, p. 364.—BERNHAUER and SCHUBERT, 1911, p. 172. (Not Bernhauer, 1914.)

Hypostenus bakeri (Bernhauer) LENG and MUTCHLER, 1914, p. 404.

Description.—Similar to *alumnus* Sharp but differing as follows: Black, subopaque. *Head* as wide as elytra; more strongly and densely punctate; without metallic lustre; antennae not clavate. *Pronotum* shorter, scarcely longer than wide; more coarsely and densely punctate. *Elytra* much shorter, together somewhat wider than long; more coarsely punctate and much more densely and confusedly channeled. *Abdomen* cylindrical; somewhat more densely punctate. *Male*, seventh sternite somewhat flattened; eighth sternite with a broad triangular emargination, not large and extending not far in the surface of the sternite. Length, 2 mm. (From Bernhauer.)

Type locality.—Cuba, Habana.

Types.—One male, presumably in the collection of Max Bernhauer.

Records.—The following is the only record known to me:

Cuba: (Leng and Mutchler, 1914), Habana (Bernhauer, 1910).

Specimens examined.—I have seen no examples of this species.

Remarks.—This species was rather briefly described without mention of subgeneric characters. These have been assumed from its position in the catalog (Bernhauer and Schubert, 1910, p. 172). If the species is really subopaque, it is quite distinct from all those from the West Indies before me by that character.

I find no record of its habits.

6. STENUS JAMAICENSIS, new species

Description.—Black, pronotum and elytra generally violet-black. *Head* not distinctly biimpressed between the eyes; not abruptly elevated at edge of eyes; labrum broadly rounded; with very coarse and deep punctures separated generally by less than half their diameter, intervals flat; without distinct impressed areas; without ground sculpture. *Pronotum* one-third longer than wide, widest just behind middle, not greatly narrowed either way; with very coarse and deep punctures, separated by less than half their diameter by evenly convex intervals, without ground sculpture. *Elytra* about one-half wider than pronotum, one-fifteenth longer than wide; with humeral callus scarcely at all elevated and without impressions; with punctures as on pronotum but generally separated by their diameter or more; without ground sculpture or pubescence. *Abdomen* not margined; with basal segments punctured as elytra but with punctures less coarse, becoming less impressed apically; eighth tergite only with distinct scaly ground sculpture; with sparse pubescence only at tip; eighth sternite bordered with a row of minute spinules; basal part of ninth tergite broadly emarginate and bordered with fine spinules of much greater length than on the eighth sternite. *Tarsus* with fourth segment bilobed. Length, 4½ to 5½ mm.

Type locality.—Jamaica, between Mocho and Catadupa, in southern St. James Parish.

Types.—Holotype and two paratypes, U.S.N.M. No. 52387, collected by Chapin and Blackwelder in 1935–37; two paratypes collected by H. G. Hubbard; and one paratype collected by Harold Morrison on September 12, 1917.

Records.—The following are the records known to me:

Jamaica: (Hubbard, in U.S.N.M.), Sharps Grove near Chapelton (Morrison, in U.S.N.M.), Mocho, in St. James Parish (Blackwelder stations 16, 406), Manchioneal (Blackwelder station 364).

Specimens examined.—I have seen only the six types.

Remarks.—I am unable to distinguish sexes among these six specimens. The type and one other have the ninth sternite narrowly excised at apex, but all the others have this segment so far retracted that it is invisible.

The type and two others collected by me were all taken by sweeping low herbage along the road. On each occasion further collecting failed to produce more specimens.

7. STENUS JUGALIS Erichson

Stenus iugalis ERICHSON, 1840, p. 736.

Stenus jugalis Erichson, FAUVEL, 1901, p. 74 (as synonym of *cupreus* Laporte).—BERNHAUER and SCHUBERT, 1911, p. 173 (as synonym of *cupreus*).—BENICK, 1917, pp. 300, 301.—SCHEERPELTZ, 1933, pp. 1176, 1178.—BENICK, 1938, p. 148.

Description.—Piceous. *Head* not distinctly biimpressed but with midline feebly raised; without smooth areas; labrum broadly rounded; punctures rather coarse and deep, regular, generally separated by about half their diameter; intervals moderately convex, with a faint alutaceous luster; pubescence distinct. *Pronotum* one-third longer than wide, widest at middle, scarcely narrowed in front, slightly but emarginately narrowed behind; punctures coarse and deep but very dense, separated by less than half their diameter by convex intervals; without ground sculpture or pubescence. *Elytra* about one-half wider than pronotum, nearly one-sixth longer than wide; humeral callus not prominent; punctation similar to that of pronotum but a little coarser, sparser, and less abrupt, intervals not so convex; without ground sculpture or pubescence. *Abdomen* not margined; with same type of punctures as elytra but less coarse and less dense; with distinct ground sculpture on seventh and eighth tergites; pubescence very short. *Tarsi* with fourth segment strongly bilobed. *Male*, sixth sternite slightly flattened at middle posteriorly and with an indefinite area of minute sculpture and denser pubescence; seventh feebly emarginate at middle, surface flattened and with a longitudinal whitish spongy area; eighth sternite with a narrow deep excision, all angles rounded, sides straight. *Female*, apical sternites not modified. Length, 4½ to 5 mm.

Type locality.—Colombia.

Types.—Either in Hope Museum, Oxford, or Zoologische Museum. Berlin.

Records.—The following are the records known to me:

Trinidad: Montserrat (Busck, in U.S.N.M.), San Rafael (Adamson, as Blackwelder station 444F).

South America: (British Museum), VENEZUELA (British Museum), COLOMBIA (Erichson, 1840).

Specimens examined.—I have examined six examples in the British Museum, two in the United States National Museum, and one collected by Dr. A. M. Adamson on January 4, 1936.

Remarks.—This species appears to be properly associated with Erichson's name *jugalis*. I have compared our specimens with the South American examples in the British Museum. I do not have enough material to determine its variability, but I believe it to be fairly constant in the characters used in the key.

I find no record of its habits.

8. STENUS AUGUSTINUS, new species

Description.—Piceous black. *Head* not impressed between the eyes but vaguely elevated in front; without smooth areas; labrum broadly rounded; punctures moderately coarse and deep, regular, separated by much less than their diameter, intervals rather flat but not sculptured. *Pronotum* one-fourth longer than wide, widest just behind middle, moderately evenly narrowed in front, broadly emarginate behind; punctures coarse and deep but very dense, separated by less than one-half diameter by irregular convex intervals; without ground sculpture. *Elytra* three-eighths wider than pronotum, one-eleventh longer than wide; humeral callus not at all prominent; punctation similar to that of pronotum but a little coarser and sparser; without ground sculpture. *Abdomen* not margined; with same type of punctures as elytra but much less coarse and less dense; with traces of ground sculpture on the eighth tergite; pubescence short. *Tarsus* with fourth segment strongly bilobed. *Male*, seventh sternite very slightly emarginate; eighth sternite with a large triangular notch about as deep as broad, angles narrowly rounded. *Female*, seventh and eighth sternites not modified. Length, 4 to 4½ mm.

Type locality.—Trinidad, St. Augustine.

Types.—Holotype, male, and one paratype, female, in the Museum of Comparative Zoology, and one paratype, male, in the United States National Museum (No. 52492); collected in April 1929 by Dr. P. J. Darlington.

Records.—The following is the only record known to me:

Trinidad: St. Augustine (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the three types.

Remarks.—The slight pronotal protuberance is not equally strong in the three specimens, but this species can be distinguished from *jugalis* by its much narrower head, by the absence of the whitish pubescent area on the seventh sternite of the male, and by the wider emargination of the eighth sternite of the male.

I have received no record of its habits.

9. STENUS HAITIENSIS, new species

Description.—Shiny black to uniformly picescent. *Head* very slightly depressed between the eyes but without raised midline; without smooth areas; labrum rounded but feebly truncate in front; punctures moderate but irregular, sometimes separated by nearly their diameter, intervals flat and shiny. *Pronotum* three-eighths longer than wide, widest just before middle, feebly narrowed before and behind, sides feebly emarginate behind; punctures moderately coarse and deep, irregularly separated by one-half their diameters by feebly convex intervals; without ground sculpture. *Elytra* one-half wider than pronotum, one-twelfth longer than wide; humeral callus very feeble; punctation similar to that of pronotum but coarser, not at all serial; without ground sculpture. *Abdomen* not margined; with same type of punctures as pronotum but less coarse and less dense; with distinct ground sculpture on seventh and eighth tergites; pubescence very short. *Tarsi* with fourth segment strongly bilobed. *Male*, sixth and seventh sternites densely and finely punctate along middle, seventh very feebly emarginate, eighth with an abrupt triangular emargination more than twice as deep as wide. *Female*, sixth and seventh sternites punctate as in male, eighth truncate. Length, 4 to 5 mm.

Type locality.—Haiti, northeastern foothills of the Massif de La Hotte; elevation 2,000 to 4,000 feet.

Types.—Holotype and three paratypes in Museum of Comparative Zoology, collected on October 10–24, 1934, by Dr. P. J. Darlington. Two paratypes with same data in the United States National Museum (No. 52493).

Records.—The following are the records known to me:

Hispaniola: HAITI, Massif de La Hotte (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the six types.

Remarks.—This species differs from *jugalis* principally as indicated in the key, but also in the more abrupt and narrower emargination of the eighth sternite of the male and the feeble development of the spongy area on the seventh sternite of the male.

I have received no record of its habits.

10. STENUS MUTCHLERI, new species

Description.—Shiny piceous black. *Head* scarcely at all impressed between the eyes; labrum broadly rounded; with very coarse and deep punctures separated by much less than their diameter by feebly convex intervals; without distinct smooth areas; without ground sculpture. *Pronotum* with coarse and deep punctures, very narrowly separated, the intervals almost rugose and with traces of ground sculpture; as long as broad, widest at the middle, arcuately narrowed to apex, emarginately narrowed to base. *Elytra* one-half wider than pronotum, one-tenth wider than long; humeral callus feeble but with anterior face impunctate; punctures coarser than on pronotum, more distinct and sometimes separated by one-half their diameter by shining intervals; without trace of serial arrangement; pubescence rather long. *Abdomen* not margined; with moderately large but feeble punctures rather dense; with traces of ground sculpture apically. *Tarsus* with fourth segment strongly bilobed. *Male*, seventh sternite very feebly emarginate; eighth with a small triangular emargination twice as wide as deep. *Female*, seventh sternite very feebly emarginate; eighth sternite truncate. Length, 2¼ to 2¾ mm.

Type locality.—Cuba, 7 kilometers north of Vinales.

Types.—Holotype and 10 paratypes in the American Museum of Natural History, collected on September 16–22, 1913. Four paratypes in the United States National Museum (No. 52494) and two in the Museum of Comparative Zoology.

Records.—The following are the records known to me:

Cuba: Vinales (A.M.N.H., U.S.N.M., M.C.Z.), Candelaria (M.C.Z.), Soledad (M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen the 17 types and 3 other specimens.

Remarks. This species is similar to *jugalis* but differs by its short pronotum, broader emargination of the eighth sternite of the male, and the absence of the spongy area of the seventh sternite. It also differs markedly in size and appearance.

I have received no record of its habits.

11. STENUS MORRISONI, new species

Description.—Black, elytra and abdomen piceous. *Head* not bi-impressed between the eyes; not abruptly elevated at edge of eyes; labrum broadly rounded, feebly flattened in front; with coarse and deep punctures generally separated by less than half their diameter, interstices rather flat, without impunctate areas; without ground sculpture; pubescence distinct. *Pronotum* one-third longer than wide, widest near middle, sides arcuate in front, almost emarginate behind; with coarse and deep punctures generally separated by less than half their diameter by convex intervals; without ground sculpture; pubescence very short but distinct. *Elytra* one-half wider than pronotum, one-seventh longer than wide; with humeral callus scarcely elevated and without impressions; punctures less abrupt than on pronotum, appearing a little more separate, intervals less convex; without ground sculpture; pubescence short but distinct. *Abdomen* not margined; with punctures similar to elytra but smaller, sparser apically, very much finer on eighth tergite which has distinct scaly ground sculpture. *Tarsus* with fourth segment bilobed. *Male*, sixth sternite with posterior half at center flattened and with a whitish spongy surface, seventh sternite with same on apical two-thirds, feebly emarginate at center; eighth sternite with a narrow acuminate excision extending through three-fourths of its length, rounded at sides. Length, 5 mm.

Type locality.—Trinidad, Department of Agriculture Grounds, Port of Spain.

Types.—Holotype, male, U.S.N.M. No. 52386, collected by Harold Morrison on November 23, 1918.

Records.—The following is the only record known to me:

Trinidad: Port of Spain (Morrison, in U.S.N.M.).

Specimens examined.—I have seen only the unique type.

Remarks.—This species is very similar to *jugalis* Erichson as I have determined that species. This is distinguished, however, besides the character given in the key, by the much deeper and narrower excision of the eighth sternite in the males.

I have no record of its habits.

12. STENUS BRYANTI, new species

Description.—Piceous. *Head* with two longitudinal impressions scarcely distinct; without smooth areas; labrum broadly rounded; punctures moderately coarse, somewhat irregular; without ground sculpture; pubescence evident. *Pronotum* one-fourth longer than wide, widest about middle, sides in front rounded, nearly straight behind; punctures coarse, deep, dense, separated by less than half their diameter; without ground sculpture; pubescence short. *Elytra* three-eighths wider than pronotum, one-eleventh longer than broad; humeral callus scarcely evident; punctures similar to pronotal but intervals a little less convex; no ground sculpture; pubescence a little longer. *Abdomen* not margined; punctured as the elytra but less coarsely or closely, intervals flat; without ground sculpture except a trace on the eighth tergite; pubescence rather long and dense. *Male*, seventh sternite with pubescence more dense at middle apically; eighth deeply narrowly triangularly emarginate, apex rather rounded, sides arcuate apically, emargination extending through half the length of the segment. *Female*, apical sternites not modified. *Tarsus* with fourth segment strongly bilobed. Length, 3¼ to 4 mm.

Type locality.—Trinidad, cocoa estate about 6 miles from La Brea, county of St. Patrick, ward of La Brea.

Types.—Holotype, male, and 1 paratype, U.S.N.M. No. 52383. collected by Harold Morrison on October 18, 1918; 1 paratype from Aripo Savanna, H. Morrison, October 26, 1918; 10 paratypes in the British Museum labeled "Trinidad B.W.I. 1903. C. E. Bryant."

Records.—The following are the records known to me:

Trinidad: (Bryant, in British Museum), La Brea (Morrison, in U.S.N.M.), Aripo (Morrison, in U.S.N.M.).

Specimens examined.—I have seen 3 specimens in the United States National Museum and 10 borrowed from the British Museum.

Remarks.—This species is very similar to *morrisoni* but differs by its smaller size, less coarse and more irregular punctures of vertex, and more definitely serial pronotal punctures, as well as the sculpture of the eighth tergite.

I have no record of its habits.

13. STENUS DYERI, new species

Description.—Piceous. *Head* rather distinctly biimpressed on vertex between eyes; elevated at middle and smooth, shining; with additional smooth areas at posterior angle of eye and behind antennal ridge, but all areas rather small and indefinite; punctures moderately coarse or less, irregularly spaced, intervals flat; vague ground sculpture near antennae; pubescence long and very evident. *Pronotum* one-third longer than wide, widest just behind middle; sides arcuate in front, feebly emarginate behind; punctures rather coarse but irregular in size and spacing, intervals nearly flat, not in series along midline; without ground sculpture; pubescence moderate. *Elytra* one-half wider than pronotum, one-thirteenth longer than wide; humeral callus scarcely evident, with a feeble elevation between it and suture; punctation similar to that of pronotum but a little coarser and sparser; with distinct but rather indefinite ground sculpture; pubescence long and sparse. *Abdomen* not margined; punctures abrupt and shallow, not dense at base and more sparse apically, diameter less than half that of elytral punctures. *Male*, unknown. *Female*, apical segments more densely punctate at middle; eighth sternite slightly emarginate. *Tarsus* with fourth segment bilobed. Length, 4¾ mm.

Type locality.—Cuba.

Types.—Holotype, female, U.S.N.M. No. 52382, "F. J. Dyer Coll.," September 29, 1916.

Records.—The following is the only record known to me:

Cuba: (Dyer, in the U.S.N.M.).

Specimens examined.—I have seen only the unique type.

Remarks.—This species is distinguished from *adamsoni* by the relative length of the pronotum and by the flatter intervals between the pronotal punctures. It differs from *cubanus* in its size, in having the abdominal segments not very abruptly constricted, and in having the smooth areas of the head poorly defined.

I have no record of its habits.

14. STENUS CUBANUS, new species

Description.—Piceous. *Head* distinctly biimpressed between the eyes; with an elevated central smooth area, another at upper posterior angles of eye, and one behind the antennal ridge; labrum broadly rounded; punctures moderately coarse but confused and crowded in depressions; without ground sculpture; pubescence short but distinct. *Pronotum* one-eighth longer than wide, widest near middle, sides feebly arcuate in front, distinctly emarginate behind; with coarse, irregular punctures, with an irregular smooth area at middle and others at sides; intervals moderately convex; without ground sculpture; pubescence short. *Elytra* three-fifths wider than pronotum, scarcely wider than long; humeral callus slightly prominent, with another feeble prominence between humerus and suture; punctures coarser than on pronotum, irregular in size and density; without ground sculpture; pubescence short. *Abdomen* not margined; with punctures very much finer than on elytra, rather sparse; no ground sculpture except on apical segments; pubescence moderately long. *Tarsus* with fourth segment bilobed. *Male*, sixth sternite flattened apically and with denser pubescence, seventh same throughout its length; eighth with an even triangular emargination, slightly wider than deep, apex scarcely rounded, outer angles gradually rounded; eighth tergite alone with ground sculpture. *Female*, apical sternites not modified; seventh and eighth tergites and sixth, seventh, and eighth sternites with ground sculpture. Length, 3 to 3¼ mm.

Type locality.—Cuba, Cayamas, 15 miles west-northwest of Cienfuegos, Santa Clara Province.

Types.—Holotype, male and two paratypes, U.S.N.M. No. 52384, collected by E. A. Schwarz on February 28 in 1902, 1903, or 1904.

Records.—The following is the only record known to me:

Cuba: Cayamas (Schwarz, in U.S.N.M.).

Specimens examined.—I have seen only the three types.

Remarks.—This species is distinct from all others in our region by the large impunctate shining areas on the head. The male abdominal characters are likewise distinctive.

I have no record of its habits.

15. STENUS ADAMSONI, new species

Description.—Piceous. *Head* with two distinct short longitudinal impressions between the eyes; middle elevation with indefinite smooth area, also one at upper apical corner of eye, and one behind antennal ridge; labrum broadly rounded; punctures moderate but deep and irregular, intervals convex, shining; without ground sculpture; pubescence distinct. *Pronotum* about as long as wide, widest near middle; sides feebly arcuate in front, feebly emarginate behind; punctures rather coarse but very irregular, sometimes partly united and sometimes leaving wide smooth spaces between; without ground sculpture; pubescence short but distinct. *Elytra* three-fifths wider than pronotum, one-seventh wider than long; humeral callus slightly prominent; punctured similarly to pronotum but a little more coarsely, sparsely, and regularly; intervals convex; without ground sculpture; pubescence short but distinct. *Abdomen* not margined; punctured similarly to elytra but less densely, less coarsely especially posteriorly, and less deeply; without ground sculpture; pubescence short but distinct. *Tarsus* with fourth segment bilobed. *Male*, unknown. *Female*, ventral abdominal segments not modified except for denser punctures at middle of apical segments. Length, 4 mm.

Type locality.—Trinidad, Department of Agriculture Grounds, Port of Spain.

Types.—Holotype, female, U.S.N.M. No. 52385, collected October 24, 1918, by Harold Morrison.

Records.—The following is the only record known to me:

Trinidad: Port of Spain (Morrison, in U.S.N.M.).

Specimens examined.—I have seen only the unique type.

Remarks.—This species is not strongly separated from *cubanus* but it seems best at present to separate it even though the male is unknown. It may prove to be a South American species, but I have been unable to find any to which it can be ascribed.

I have no record of the habits of this species.

16. STENUS DARLINGTONI, new species

Description.—Piceous. *Head* feebly but broadly biimpressed between the eyes; median elevation with a definite and distinct smooth area extending throughout the vertex but much broader posteriorly; also indefinite areas along eye and behind antennal ridge; labrum broadly rounded; punctures rather fine but irregular and deep, the intervals very convex and shining; without ground sculpture; pubescence short but distinct. *Pronotum* one-fifth longer than wide, widest near middle; sides almost straight from middle to front angles, feebly emarginate behind; punctures coarse and very irregular, sometimes more or less united in grooves, usually with an irregular smooth area behind middle of disk; without ground sculpture; pubescence very short. *Elytra* two-thirds wider than pronotum, one-fourteenth wider than long; humeral callus rather prominent; punctured similarly to pronotum but more coarsely and a little more sparsely and regularly; the intervals unevenly convex; without ground sculpture; pubescence distinct. *Abdomen* not margined; punctures smaller than on pronotum, a little shallower, intervals flat; without distinct ground sculpture; pubescence distinct. *Tarsus* with fourth segment bilobed. *Male*, seventh and eighth sternites with denser and finer pubescence, eighth with a broad semicircular emargination; ninth flattened transversely but somewhat concave longitudinally, narrowed posteriorly with a small arcuate emargination between the two spiniform apices; seventh, eighth, and ninth sternites with very indefinite ground sculpture. *Female*, apical segments without special modifications, sculpture as in male. Length, 4½ to 5 mm.

Type locality.—Trinidad, St. Augustine.

Types.—Holotype, male, and three paratypes in the Museum of Comparative Zoology; three paratypes in the United States National Museum (No. 52424); collected in April 1929 by Dr. P. J. Darlington.

Records.—The following is the only record known to me:

Trinidad: St. Augustine (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the seven types.

Remarks.—This species is distinguished by the size and length of the median smooth area of the head, as well as by the spiniform apices of the ninth sternite of the male.

I have received no record of its habits.

17. STENUS LUCENS Cameron

Stenus (*Mesostenus*) *lucens* CAMERON, 1913b, p. 329.—LENG and MUTCHLER, 1917, p. 198.—SCHEERPELTZ, 1933, p. 1192. (Not Benick, 1917.)

Description.—Black. *Head* with eyes broader than elytra; with rather broad, raised, almost impunctate central space, rest of surface with moderately large not very close punctures; central space and interstices smooth and polished without trace of ground sculpture; glabrous; antennae long and slender. *Pronotum* widest at middle, scarcely longer than wide, equally narrowed in front and behind, impressed on either side at the widest part; punctures much finer and more sparing than on the head, interstices smooth and polished; glabrous. *Elytra* shorter than pronotum, transverse; with distinct humeral callus and impression internal to latter; disk impressed; punctures fine and scattered as on pronotum, interstices smooth, polished; glabrous. *Abdomen* margined, gradually narrowed to apex, with a few scattered punctures at base of segments, rest of surface almost impunctate; pubescence scanty. *Tarsus* with fourth segment bilobed. *Male*, eighth tergite with horseshoe-shaped emargination; sixth and seventh sternites impressed at middle, eighth with a narrow deep triangular excision. Length, 3½ mm. (From Cameron.)

Type locality.—Grenada, Balthazar.

Types.—One specimen labeled type in the British Museum.

Records.—The following is the only record known to me:

Grenada: (Cameron, 1913).

Specimens examined.—I have seen only the unique type.

Remarks.—This species is distinct by its nearly impunctate elytra. I find no record of its habits.

18. STENUS HISPANIOLUS, new species

Description.—Shining black. *Head* not at all impressed between the eyes but midline slightly elevated, elevation broadly oval, smooth, not extended anteriorly; with antennal prominence smooth but without definite smooth area above eye; labrum very broadly rounded; punctures irregular in size and spacing but often rather dense and moderately coarse; without distinct ground sculpture. *Pronotum* slightly longer than wide, widest near middle; sides not arcuate in front but angulate halfway between middle and apex, anterior angles scarcely evident, feebly emarginate behind; punctures considerably coarser than on head, irregularly spaced but rather dense especially along midline, occasionally with irregular smooth areas; without ground sculpture. *Elytra* one-half wider than pronotum, about as wide as long; humeral callus moderate; with punctures about as coarse as on pronotum but sparser on the disk, separated by much less than their diameter laterally, the intervals rather flat; without ground sculpture. *Abdomen* not margined; punctures rather shallow and sparse, somewhat indefinite apically; with ground sculpture on two apical tergites. *Tarsus* with fourth segment bilobed. *Male*, sixth, seventh, eighth, and ninth sternites flattened, eighth with a small triangular notch three-fourths as wide as the apex, nearly as deep as wide, with apex narrowly rounded; ninth emarginately truncate with prominent spiniform apices. *Female*, sternites unmodified. Length, 3 to 4 mm.

Type locality.—Haiti, Étang Lachaux, on the southwest peninsula.

Types.—Holotype and 12 paratypes, Museum of Comparative Zoology; 9 paratypes in the United States National Museum (No. 52496).

Records.—The following are the records known to me:

Cuba: Soledad (Darlington, in M.C.Z. and U.S.N.M.), Buenos Aires, Trinidad Mountains (Darlington, in M.C.Z. and U.S.N.M.), Hongolosongo, Oriente (Darlington, in M.C.Z.).

Hispaniola: HAITI, Étang Lachaux (Darlington, in M.C.Z. and U.S.N.M.); DOMINICAN REPUBLIC, Sánchez (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the 22 types.

Remarks.—This species is not entirely satisfactory in the key. The smooth areas of the head are often distinct but are not as regular as in the species in the first half of couplet 9. It can be distinguished from *adamsoni* and *cubensis* by the size of the median area of the vertex, and from most other species by the unimpressed head.

I have received no record of its habits.

19. STENUS CUBENSIS Bernhauer

Stenus cubensis BERNHAUER, 1910, p. 364.

Stenus (*Hypostenus*) *cubensis* Bernhauer, BERNHAUER and SCHUBERT, 1911, p. 173.

Hypostenus cubensis (Bernhauer) LENG and MUTCHLER, 1914, p. 404.

Description.—Black with slight aeneous luster. *Head* not impressed between the eyes but feebly elevated along midline, the elevation narrowly and irregularly smooth and shining; without other smooth areas; labrum broadly rounded; punctures coarse but irregular and obscured by short hairs; without distinct ground sculpture. *Pronotum* scarcely at all longer than wide, widest near middle; sides nearly straight in front and only very feebly emarginate behind; punctures a little coarser than on the head but irregular, sometimes with suggestion of sculpture on the intervals. *Elytra* one-half wider than the pronotum, somewhat wider than long; humeral callus moderate; punctures a little coarser and sparser than on pronotum, of irregular shape; without sculpture on the intervals. *Abdomen* with punctures similar to those on head, sparser apically; with distinct ground sculpture on the two apical tergites. *Male*, eighth sternite with a triangular emargination one-half deeper than wide; seventh sternite scarcely emarginate posteriorly, flattened and with somewhat dense and long pubescence. Length, 2½ mm.

Type locality.—Cuba, Habana.

Types.—One male, presumably in the collection of Max Bernhauer.

Records.—The following are the records known to me:

Cuba: (Leng and Mutchler, 1914), Habana (Bernhauer, 1910), Soledad (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen three examples of this species from the Museum of Comparative Zoology (of which one has been deposited in the United States National Museum).

Remarks.—This species was originally placed in the subgenus *Hypostenus*. It is not strikingly different from *adamsoni* and others. It appears to be distinguishable by the feeble development of the smooth areas of the head and the distribution of the punctation.

Ten other specimens which agree closely with this species (from Soledad, Aguadores in Oriente, and Buenos Aires in the Trinidad Mountains) differ principally in the size and shape of the emargination of the eighth sternite in the male. In these it is smaller, may be as wide or twice as wide as deep, and there is less obvious modification of the punctation of the seventh and eighth sternites.

I find no record of its habits.

20. STENUS ANTILLENSIS Benick

Stenus (*Hypostenus*) *antillensis* Benick, 1917, p. 301, 302.—Scheerpeltz, 1933, p. 1173.

Description.—Black. *Head* moderately wide, somewhat wider than the pronotum and somewhat smaller than the elytra, vertex feebly impressed; with median broadly elevated area, another behind the antennal ridge, and another at posterior margin of eye, smooth and shining. *Pronotum* scarcely longer than wide; sides expanded, strongly rounded at middle, arcuate before and behind; coarse punctures separated at middle to form midline; behind on each side with a distinct shining tubercle. *Elytra* as long as pronotum, scarcely widened behind humerus; together somewhat deeply emarginate behind; the convex disk is impressed in front at suture, and on each side with two wide transverse impressions which are feeble and do not reach entirely to the suture; coarsely punctate, more coarsely and a little more sparsely than pronotum. *Abdomen* not margined; in front coarsely and densely punctate, behind much finer and somewhat more sparsely punctate. *Tarsi* with fourth segment bilobed, first as long as two following together. *Male*, seventh sternite finely punctate and pubescent at middle, eighth with a broad shallow rounded emargination, surface at middle finely and densely punctate and densely pubescent. *Integuments* without ground sculpture. Length, 4⅘ mm. (From Benick.)

Type locality.—Guadeloupe.

Types.—One male in collection of Ludwig Benick.

Records.—The following is the only record known to me:

Guadeloupe: (Benick, 1917).

Specimens examined.—I have seen no examples of this species.

Remarks.—This species is apparently distinct by its tuberculate pronotum as well as by the male abdominal characters.

I find no record of its habits.

Subfamily EUAESTHETINAE

This subfamily has been very imperfectly characterized, and most of its genera are known chiefly from the included species, there being no adequate descriptions or diagnoses.

I know of no character or group of characters that will distinguish the subfamily from the family Pselaphidae. The flexibility of the abdomen is a relative condition at best, but some of these and many other staphylinids have the abdomen almost completely rigid. Very few staphylinids have eight visible ventral abdominal segments, the Euaesthetinae not being among those few.

The number of tarsal subsegments varies so greatly in the Staphylinidae that the presence of more segments in the Euaesthetinae than is characteristic of the Pselaphidae can scarcely be taken as a character of importance. There are quite enough staphylinids with 3-segmented tarsi to make this character useless in separating the Staphylinidae and Pselaphidae.

Three species, placed in three genera, have been recorded from the West Indies. I have seen examples of two of these but am unable to verify either the generic or specific assignment. In the meager literature on this group I have been unable to find characters for a generic key or for generic diagnoses. I have therefore merely listed the published records and synonymy.

XXVIII. Genus EXOCTAVIUS Bierig

Exoctavius Bierig, 1934e, p. 221.

Genotype.—*E. bermudezi* Bierig (monobasic and original designation).

Remarks.—No information is available to me other than that in the original description referred to above. Only one species is known.

1. EXOCTAVIUS BERMUDEZI Bierig

Exoctavius bermudezi Bierig, 1934e, p. 222, pl. 11, fig. 6.

Type locality.—Cuba, Sierra del Rosario, vicinity of the source of the Rio Taco-Taco.

Types.—Holotype and allotype in the collection of Alexander Bierig. (An example sent to the United States National Museum labeled cotype was collected at Aspiro. It may not have been in the original series, since that locality was not mentioned in the original description.)

Records.—The following are the records known to me:

Cuba: Sierra del Rosario (Bierig, 1934), Aspiro (Bierig, in U.S.N.M.).

Remarks.—The two types (and one other example) are the only ones known, but the description may be adequate when the other American Euaesthetinae are sufficiently known to permit comparisons.

XXIX. Genus TAMOTUS Schaufuss

Tamotus Schaufuss, 1872, p. 248 (nomen nudum) ; 1877, p. 289.

Genotype.—*T. femoratus* Schaufuss (monobasic).

Remarks.—I can find no diagnosis of this genus or even a discussion of a few characters. Careful study will be required to determine its characters and their limits. Only one species is known.

1. TAMOTUS FEMORATUS Schaufuss

Tamotus femoratus Schaufuss, 1874, p. 289; 1883, p. 166, 170.—Fauvel, 1902a, p. 38.—Eichelbaum, 1909, p. 132.—Bernhauer and Schubert, 1911, p. 188.—Leng and Mutchler, 1914, p. 404.

Type locality.—Cuba.

Types.—Possibly in the Zoologische Museum, Berlin.

Records.—The following is the only record known to me:

Cuba: (Schaufuss, 1874; Leng and Mutchler, 1914).

Remarks.—This species has apparently not been reported since the original description. The information available is insufficient to place it in its proper relation to the rest of the subfamily.

XXX. Genus STENAESTHETUS Sharp

Stenaesthetus Sharp, 1874, p. 79.

Genotype.—*S. sunioides* Sharp (monobasic).

Remarks.—I can find no adequate diagnosis of this genus. It has apparently not been mentioned since its original proposal. Four species have been assigned to it.

1. STENAESTHETUS IMMARGINATUS (Erichson)

Euaesthetus immarginatus Erichson, 1840, p. 748.

Type locality.—"Valle Araguensi Columbiae."

Types.—In either the Hope Museum, Oxford, or the Zoologische Museum, Berlin.

Records.—The following are the records known to me:

St. Vincent: (British Museum).
South America: Colombia (Erichson, 1840).

Remarks.—One example from St. Vincent is in the British Museum. It is the sole authority for the transfer of this species from *Euaesthetus* to *Stenaesthetus*, as well as for the West Indian record.

Subfamily PAEDERINAE

This large and important subfamily presents more difficulties than most of the others. A revisionary treatment of the genera was attempted by me in 1939 as part of this study, but some changes have been made in the prsent manuscript. Several groups of genera are in need of furthur revision. Among these may be mentioned the Pinophilini, the *Myrmecosaurus*-group, the *Medon-Lithocharis* complex, and the *Stilicopsis*-group.

With many of the smaller species segregation to genus can be made only after examination of the prosternal process under the front coxae. This usually necessitates the relaxing and lifting of one front coxa. In the West Indian fauna the genera can later be recognized by other characters, such as the sculpture of the head and the armature of the labrum.

In most classifications of the Staphylinidae the Paederinae and Staphylininae are separated by the character of the exposure or concealment of the mesothoracic spiracles (sometimes called prothoracic) or by the shape of the posterior coxae. In the case of the first of these characters the Paederinae contains every degree from completely free and visible spiracle to one completely hidden by one of several means. The character is simply not usable for this separation, but it is not easy to find a substitute. The shape of the posterior coxae is not a usable character in this instance. It is impossible to key out certain lathrobiids and philonthids without reference at this point to other characters. I have attempted to show previously (Blackwelder, 1936) that these two subfamilies have posterior coxae that are structurally similar.

Studies of the larvae (Böving, 1931) confirm the opinion that these subfamilies are closely related. Careful study has so far shown only one fundamental structural character that distinguishes the adults—the pattern of the pigmented areas on the intersegmental membranes of the abdomen. Illustrations of these are given in the paper mentioned above (Blackwelder, 1936). They can sometimes be seen with a binocular microscope of fairly high power, or may be examined readily in slide preparations under the compound microscope. In the Paederinae the sclerotized or pigmented areas are rectangular and are arranged in transverse rows. In the Staphylininae they are triangular or irregular and are arranged in definite longitudinal bands.

KEY TO WEST INDIAN GENERA OF PAEDERINAE[12]

1. Maxillary palpus with the last segment very small, generally subulate 4
   Maxillary palpus with the last segment as long as the preceding, obliquely hatchet-shaped 2
2. Abdomen strongly margined, punctate 3
   Abdomen not margined, coarsely and regularly sculptured LXI. Palaminus
3. Mandibles edentate or with a single internal tooth near the base. LX. Araeocerus
   Inner edge of mandibles near the middle with a parallel slender tooth, which is oblique, and emarginate at apex LIX. Pinophilus
4. Prosternum not dilated under the front coxae as far as hypomera 5
   Prosternum expanded laterally and caudally, either connate with hypomera or very narrowly separated from them 22
5. Antennae anteriorly flexile and strongly geniculate at first joint, basal segment very much elongate 6
   Antennae posteriorly flexile, not strongly geniculate, basal segment not very elongate 9

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[12] This key, with the exception of the first three couplets, has been adapted from the key in my recent revision of the Paederini (Blackwelder, 1939).

6. Neck less than one-fourth as wide as head ---------- XLVII. **Ophites**

Neck more than one-fourth as wide as head ---------- 7

7. Elytra with a pleural fold near side margin ---------- XLV. **Homoeotarsus**

Elytra without trace of a pleural fold ---------- 8

8. Labrum not dentate ---------- XLVII. **Biocrypta**

Labrum bidentate (the denticles sometimes obtusely rounded). XLVI. **Ochthephilum**

9. Fourth segment of maxillary palpus not strongly compressed nor very short, glabrous ---------- 10

Fourth segment of maxillary palpus compressed, truncate, and pubescent. XLIV. **Paederus**

10. Neck never less than one-fourth as wide as head; apex of posterior tibia with a distinct ctenidium on both sides ---------- 11

Neck variable; apex of posterior tibia with a distinct ctenidium only on inner edge[13] ---------- 13

11. Fourth segment of maxillary palpus longer than greatest width of third; labrum semicircularly emarginate; punctation dense and umbilicate. XLI. **Scopobium**

Fourth segment of maxillary palpus shorter than greatest width of third; labrum bilobed or triangularly emarginate; punctation generally not umbilicate ---------- 12

12. Elytra with a pleural fold near side margin ---------- XLIII. **Lobrathium**

Elytra without trace of a pleural fold ---------- XLII. **Lathrobium**

13. Neck (usually) one-fourth as wide as head, or more ---------- 14

Neck one-fifth to one-eighth as wide as head ---------- 20

14. Antennae with first two segments larger, rest verticillate, slender, of equal thickness throughout ---------- XXXI. **Thinocharis**

Antennae normal ---------- 15

15. Pronotum distinctly longer than wide; seventh abdominal sternite in male generally distinctly modified; punctures of head not distinctly umbilicate though not very fine ---------- XXXVII. **Orus**

Pronotum not or scarcely longer than wide; seventh abdominal sternite of male rarely modified; punctures of head umbilicate or fine and dense- 16

16. Head and pronotum densely and very finely punctate or sculptured, without any umbilicate punctures except at margins ---------- XXXII. **Lithocharis**

Head with few or many distinct umbilicate punctures, surface sometimes densely punctulate ---------- 17

17. Labrum without median tooth ---------- 19

Labrum with median tooth or prominence ---------- 18

18. Umbilicate punctures of head sparse and not strong ---------- XXXIII. **Aderocharis**

Head densely and strongly umbilicately punctured ---------- XXXIV. **Stilomedon**

19. Gular sutures distinctly diverging posteriorly from before middle. XXXV. **Sunius**

Gular sutures most approximate along middle or at base- XXXVI. **Medon**

20. Gular sutures always united, at least basally ---------- XL. **Rugilus**

Gular sutures never united in any part (although often very closely approximated) ---------- 21

21. Labrum not dentate, feebly emarginate; vertex sometimes carinate in males. XXXIX. **Monista**

Labrum not denticulate, truncate and narrowly emarginate. XXXVIII. **Scopaeus**

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[13] Further examination shows that this character is rather misleading. The presence of three or four spinules in a row well below the apex is not sufficient to place the specimen in this half of the couplet; the row must be definite and extend almost to the apex.

22. Prosternum connate with edges of hypomera 23
Prosternum not connate with edges of hypomera 26
23. Body covered with dense coarse verrucose sculpture .... LV. Ronetus
Body not covered with dense coarse verrucose sculpture 24
24. Prothorax very elongate; head grooved behind eyes .... LVIII. Sphaeronum
Prothorax not very elongate; head not grooved behind eyes 25
25. Labrum quadridentate .... LVII. Echiaster
Labrum bidentate .... LVI. Astenus
26. Labrum denticulate or broadly lobed in front 27
Labrum not denticulate, truncate and narrowly emarginate.
XLIX. Suniophacis
27. Prothorax narrowly prolonged at middle in front .... LI. Stamnoderus
Prothorax not distinctly prolonged in front 28
28. Head coarsely umbilicately punctate throughout .... LII. Stiliphacis
Head not distinctly umbilicately punctate throughout 29
29. Head and pronotum densely sculptured 30
Head and pronotum not densely sculptured .... L. Stilosaurus
30. Labrum with two long and very slender hornlike denticles.
LIII. Suniosaurus
Labrum with denticles not slender and hornlike .... LIV. Suniocharis

XXXI. Genus THINOCHARIS Kraatz

Thinocharis Kraatz, 1859b, p. 142.
Subgenus *Sciocharis* Lynch, 1884, p. 260.
Subgenus *Sciocharella* Casey, 1905, pp. 151, 158.

Genotypes.—*Thinocharis pygmaea* Kraatz (designated by Blackwelder, 1939). Of *Sciocharis*, *S. castanoptera* Lynch (designated by Blackwelder, 1939); of *Sciocharella*, *S. delicatula* Casey (monobasic).

Diagnosis.—Body slender, moderately convex; antennae posteriorly flexile, not strongly geniculate, basal segment not very elongate, first and second segments larger than the remainder, which are of uniform slenderness, somewhat verticillate; labrum without median tooth, with or without paired denticles; fourth segment of maxillary palpus very small, subulate; gular sutures not at all united, variable; prosternum carinate posteriorly, short, not dilated laterally under the coxae; hypomera prolonged in a short lobe partially behind the coxae; anterior coxal cavities open behind, confluent; front coxae large, exserted; middle coxal cavities confluent; posterior coxae contiguous, "conical"; first and second abdominal sternites absent, third carinate at middle; seventh sternite generally modified in the male; tarsi 5-segmented, anterior tarsus either slender or dilated.

Remarks.—This genus will undoubtedly be a large one with several more subgenera. Its developments somewhat parallel those found in the genera related to *Lithocharis* and *Medon*, but I am at present unable to believe that the peculiar form of the antennae is not a character of generic importance.

Medonella Casey is not at all similar to *Thinocharis*, but some of the South American species of *Thinocharis* will probably require new subgenera. All our species belong to the subgenera *Sciocharis* and *Sciocharella*, which differ from *Thinocharis* (s. str.) in having the labrum bidentate. *Sciocharis* has the gular sutures most approximate along the middle or posteriorly, whereas *Sciocharella* has them most approximate anteriorly.

I have examined 182 specimens of this genus from the West Indies, including the types of all but one of the valid species. Of these 130 are in the British Museum, 2 are in the Casey collection and 2 in the general collection of the United States National Museum, and 40 were collected by me in 1935–37. These belong to six species, of which two appear to be new.

KEY TO WEST INDIAN SPECIES OF THINOCHARIS

1. Gular sutures most approximate anteriorly[14]	2
Gular sutures most approximate posteriorly or along middle[14]	3
2. Punctures of head moderate and distinct	5. smithi
Punctures of head minute and very dense	6. exilis
3. Labrum with a median denticle and two laterals; seventh sternite of male not modified	1. poundi
Labrum without median denticle; seventh sternite of male modified	4
4. Labrum with very short minute denticles; emargination of seventh sternite in male not bounded laterally in any way	2. bakeri
Labrum with distinctly triangular and prominent denticles; emargination of seventh sternite in male bounded laterally by denticles	5
5. Elytra with discrete tuberculi; emargination of seventh sternite in male bounded laterally by a minute denticle	3. chapini
Elytra without discrete tuberculi; emargination of seventh sternite in male bounded laterally by a strong tooth	4. fuscina

1. THINOCHARIS POUNDI, new species

Description.—Rufopiceous, elytra testaceous with large sutural infuscation, abdomen rufotestaceous. *Head* nearly one-fourth wider than long; eyes large, at much less than their diameter from base; sides behind eyes nearly parallel, base feebly arcuate but angles moderately prominent; base slightly emarginate at middle; neck nearly one-half as wide as head; gular sutures moderately separated along middle, feebly diverging at both ends; without distinct punctures but with dense and rather uneven sculpture; with very fine pubescence and the usual longer hairs; labrum with two small acute denticles and a smaller one between them. *Pronotum* one-sixth wider than long, seven-eighths as wide as head; widest at anterior angles, moderately narrowed posteriorly, angles all rounded; with a rather indefinite smooth midline which is grooved posteriorly; impunctate but with moderately dense tubercles throughout; without ground sculpture; pubescence fine. *Elytra* as wide as long, one-seventh wider than pronotum; anteriorly with regular and even punctation or sculpture, but with ground sculpture along suture basally, tuberculi apically, and some indefinite punctures laterally. *Abdomen* very finely densely and indistinctly punctate; with dense fine pubescence. *Male*, seventh sternite unmodified; eighth sternite with a triangular emargination four times as wide as deep. *Female*, sternites unmodified. Length, 2½ to 2¾ mm.

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[14] The West Indian species can be separated also on the sculpture of the pronotum. In *Sciocharella* (2) the surface is finely or coarsely punctate; in *Sciocharis* (3) it is tuberculate but not at all punctate.

Type locality.—Trinidad, 5 miles west-southwest of Manzanilla junction on the Plum Road.

Types.—Holotype, male, and two paratypes, females, U.S.N.M. No. 52394, collected by me on December 18, 1935.

Records.—The following is the only record known to me:

Trinidad: Manzanilla (Blackwelder station 104A).

Specimens examined.—I have seen only the three types.

Remarks.—This species is distinguished by the simple male characters and the structure of the labrum. It belongs in the subgenus *Sciocharis* as herein defined.

The types were collected from rotting cocoa pods.

2. THINOCHARIS BAKERI (Casey)

Sciocharis bakeri CASEY, 1910, p. 188.—LENG and MUTCHLER, 1914, p. 405; 1947, p. 199.—BLACKWELDER, 1939, p. 102.

Thinocharis bakeri (Casey) BERNHAUER and SCHUBERT, 1912, p. 228.—BLACKWELDER, 1939, p. 102.

Description.—Head rufopiceous, pronotum rufous, elytra castaneous, abdomen rufotestaceous. *Head* scarcely wider than long; eyes rather large, at about their length from base; sides behind eyes nearly straight and parallel, base nearly straight at sides, slightly emarginate at middle, posterior angles rather prominent; neck one-half as wide as head; gular sutures moderately separated along middle, diverging feebly at both ends; with sparse setigerous punctures obscured by dense ground sculpture; labrum not distinctly emarginate but with two small but prominent median denticles. *Pronotum* one-seventh wider than long, scarcely narrower than head; widest at anterior angles, feebly narrowed posteriorly, angles all rounded; with dense but discreet tuberculi throughout, generally with a minute puncture visible on each tubercle; no other punctures or definite sculpture; with very fine and inconspicuous pubescence; with distinct midline, feebly grooved at base. *Elytra* as long as wide, nearly one-fourth wider than pronotum; not distinctly punctate, but with dense tuberculate sculpture; pubescence fine and dense. *Ab-*

domen not enlarged; very finely, densely, and indistinctly punctured and pubescent. *Male*, seventh sternite with two rounded emarginations separated by a blunt tooth, the emarginations not separated laterally from the margin of the segment, with unusually large and abundant hairs posteriorly; eighth sternite with a deep and broadly rounded emargination bordered with larger hairs. *Female* unknown. Length, 2½ mm.

Type locality.—Cuba, Cayamas, 15 miles west-northwest of Cienfuegos, province of Santa Clara.

Types.—Unique holotype in Casey collection in United States National Museum (No. 38216).

Records.—The following is the only record known to me:

Cuba: (Leng and Mutchler, 1914), Cayamas (Casey, 1910).

Specimens examined.—I have seen only the unique type.

Remarks.—This species is similar to *fuscina* except for the very distinct male characters. It has not been reported since the original description and is not represented in the abundant material collected at Cayamas by E. A. Schwarz. It belongs in the subgenus *Sciocharis* as herein defined.

I find no record of its habits.

3. THINOCHARIS CHAPINI, new species

Description.—Head dark rufopiceous, pronotum rufous, elytra and abdomen testaceous, elytra broadly infuscate along suture. *Head* scarcely wider than long; eyes large, at a little less than their length from base; sides behind eyes nearly parallel, base feebly arcuate, angles moderately prominent; base slightly emarginate at middle; neck not quite one-half as wide as head; gular sutures moderately separated along middle, feebly diverging at both ends; with moderate punctures especially at sides obscured by dense ground sculpture; labrum not distinctly emarginate but with two rather large and blunt denticles at middle. *Pronotum* one-sixth wider than long, scarcely narrower than head; widest at anterior angles, moderately narrowed posteriorly, angles rounded; with rather indefinite smooth midline, which is feebly canaliculate posteriorly; without punctures but with moderately dense tuberculi throughout, each with a minute puncture on its top; without ground sculpture; pubescence exceedingly short and fine. *Elytra* as long as wide, one-fourth wider than pronotum; with some indistinct ground sculpture basally along suture but with tuberculi as on pronotum but sometimes not as distinct. *Abdomen* very finely, densely, and indistinctly punctulate; with dense fine pubescence. *Male*, seventh sternite with two rounded emarginations separated by a blunt triangular tooth and feebly separated from edge of segment by a minute denticle; eighth sternite with a deep triangular emargination. *Female*, sternites not modified, 2¼ to 3 mm.

Type locality.—Jamaica, between Luana and Kensworth by way of Lacovia, Santa Cruz, and Spur Tree, parishes of St. Elizabeth and Manchester.

Types.—Holotype, male, and two paratypes, female, U.S.N.M. No. 52393, collected by Chapin and Blackwelder in February 1937. The paratypes were taken near Milk River.

Records.—The following are the records known to me:

Jamaica: Santa Cruz (Blackwelder station 421), Milk River (Blackwelder station 415).

Hispaniola: DOMINICAN REPUBLIC, Villa Altagracia (Darlington, in M.C.Z.), Jarabacoa (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the three types and three examples collected by Darlington.

Remarks.—This species is rather similar to *bakeri* in the male characters but differs in details of these and in the sculpture of the elytra. It belongs to the subgenus *Sciocharis* as herein defined.

The types were caught flying at dusk.

4. THINOCHARIS FUSCINA Cameron

Thinocharis fuscina CAMERON, 1913b, p. 342.—LENG and MUTCHLER, 1917, p. 199.—SCHEERPELTZ, 1933, p. 1246.—BLACKWELDER, 1939a, p. 102.

Description.—Head dark rufous, pronotum rufous, elytra and abdomen rufotestaceous, the elytra sometimes infuscate on the disk. *Head* one-tenth wider than long; eyes moderately large, separated by a little less than their length from base; sides behind eyes straight and nearly parallel, base feebly arcuate but angles rather prominent; somewhat emarginate at middle; neck nearly one-half as wide as head; gular sutures moderately approximate along middle, diverging feebly at both ends; with numerous moderate punctures obscured by the dense ground sculpture; with dense short pubescence and longer hairs at sides and back; labrum not distinctly emarginate but with two rather large triangular denticles at middle. *Pronotum* one-seventh wider than long, scarcely as wide as head; widest at anterior angles, feebly narrowed posteriorly, angles all rounded but the posterior more broadly; with rather dense but discreet tuberculi throughout, sometimes appearing to have a minute puncture on top of each tubercle; without other punctures or sculpture; pubescence short and dense; midline rather vaguely smooth and sometimes feebly canaliculate posteriorly. *Elytra* scarcely longer than wide; about one-sixth wider than pronotum; not distinctly punctate, with tuberculate sculpture not very dense or fine but without distinct tuberculi; pubescence fine and dense. *Abdomen* very finely densely and indistinctly punctate; with dense fine pubescence. *Male*, seventh sternite strongly produced at middle, with two semicircular emarginations separated by a broad triangular tooth and bounded laterally by acute processes directed posteromedially; eighth sternite with a deep broadly rounded emargination. *Female*, with sternites unmodified. Length, 2¼ to 2¾ mm.

Type locality.—Grenada, Chantilly Estate.

Types.—In the British Museum. (One specimen in the United States National Museum, No. 50876, is designated cotype—or paratype).

Records.—The following are the records known to me:

Grenada: (Cameron, 1913; British Museum; U.S.N.M.).
Trinidad: Tunapuua (Weber, in M.C.Z.).

Specimens examined.—I have seen 115 specimens in the British Museum, 1 in the Museum of Comparative Zoology, and 7 in the United States National Museum. The last were part of the original series, received in exchange.

Remarks.—I am unable to separate the females of this species from those of *chapini*, but the male characters are very distinct from those of any other of our species. It belongs in the subgenus *Sciocharis* as herein defined.

I find no record of its habits.

5. THINOCHARIS SMITHI Cameron

Thinocharis smithi Cameron, 1913b, p. 343.—Leng and Mutchler, 1917, p. 199.—Scheerpeltz, 1933, p. 1247.—Blackwelder, 1939a, p. 102.

Description.—Piceous. *Head* nearly one-half wider than long; eyes very large, occupying almost the entire side of the head; emarginately truncate behind; neck set into the emargination; neck about one-third as wide as head; gular sutures moderately separated, feebly converging anteriorly; punctures moderate and rather irregular, generally separated by less than their diameter; without ground sculpture; with numerous long hairs, especially at sides and back; labrum with two small but acute and prominent denticles near middle, not emarginate. *Pronotum* one-sixth wider than long, seven-eighths as wide as head; widest at anterior angles, feebly narrowed posteriorly with hind angles and base rounded; with large punctures, generally distinctly umbilicate, separated by less than half their diameter; with a trace of smooth area along midline behind middle. *Elytra* slightly wider than long, not quite as wide as pronotum; with moderately large distinct punctures, generally separated by once to twice their diameter; without ground sculpture. *Abdomen* somewhat wider than elyta in part; very indistinctly punctate but with numerous long hairs. *Male*, seventh sternite very slightly and broadly emarginate; eighth sternite with a triangular emargination twice as wide as deep with the apical angles rounded. *Female*, sternites not emarginate. Length, 2 to 2½ mm.

Type locality.—Grenada, Belleview Estate.

Types.—In the British Museum.

Records.—The following are the records known to me:

St. Vincent: (British Museum).
Grenada: (Cameron, 1913).

Specimens examined.—I have seen 12 examples (including the type) in the British Museum and 7 in the United States National Museum. The latter were from the original series and were received in exchange.

Remarks.—This species is distinguished from all others in our region by its large distinct punctures and lack of ground sculpture. It belongs in the subgenus *Sciocharella* as herein defined.

I find no record of its habits.

6. THINOCHARIS EXILIS (Erichson)

Lithocharis exilis ERICHSON, 1840, p. 627.—FAUVEL, 1888, p. 25.—EICHELBAUM, 1909, p. 146.—BLACKWELDER, 1939a, p. 102.

Sciocharis atratula LYNCH, 1884, p. 265.—FAUVEL, 1888, p. 25.—EICHELBAUM, 1909, p. 146.

Sciocharis fragilis SHARP, 1886, p. 574.—FAUVEL, 1888, p. 25.—BLACKWELDER, 1939a, p. 102.

Sciocharis minuta SHARP, 1886, p. 574.

Sciocharella delicatula CASEY, 1905, p. 159.—DURY, 1906, p. 258.—EICHELBAUM, 1909, p. 146.—CASEY, 1910, p. 188.—BLATCHLEY, 1910, p. 431.

Sciocharella pertenuis CASEY, 1910, p. 188.—LENG and MUTCHLER, 1914, p. 405; 1917, p. 199.

Thinocharis exilis (Erichson) BERNHAUER and SCHUBERT, 1914, p. 229.—BERNHAUER, 1921, p. 36.—SCHEERPELTZ, 1933, p. 1246.—BLACKWELDER, 1939a, p. 102.

Thinocharis atratula (Lynch) BERNHAUER and SCHUBERT, 1914, p. 229 (as synonym of *exilis*).

Thinocharis pertenuis (Casey) BERNHAUER and SCHUBERT, 1914, p. 229.—LENG and MUTCHLER, 1914, p. 405.—BLACKWELDER, 1939a, p. 102.

Thinocharis fragilis (Sharp) BERNHAUER and SCHUBERT, 1914, p. 229.—BLACKWELDER, 1939a, p. 102.

Thinocharis minuta (Sharp) BERNHAUER and SCHUBERT, 1914, p. 229. (Not Casey, 1905.)

Thinocharis delicatula (Casey) BERNHAUER and SCHUBERT, 1914, p. 229.—BLACKWELDER, 1939, p. 102.

Thinocharis (*Sciocharis*) *exilis* (Erichson) SCHEERPELTZ, 1933, p. 1246.

Description.—Castaneous to ferrugineous, elytra testaceous with slight infuscation along suture, abdomen rufotestaceous. *Head* scarcely wider than long; eyes rather small, at more than their length from base; posterior angles rounded, base not emarginate; neck one-half as wide as head; gular sutures rather widely separated, moderately diverging behind; not distinctly punctate, but densely and very finely sculptured throughout; with very fine and inconspicuous pubescence; labrum not emarginate but with two fine denticles above margin at middle. *Pronotum* one-sixth wider than long, as wide as head; sides nearly parallel, posterior angles more broadly rounded; with dense ground sculpture as on head; no trace on midline. *Elytra* one-third wider than pronotum, a trifle wider than long; very finely and rather densely punctate and vaguely tuberculose, but not densely sculptured as head and pronotum; pubescence fine and dense. *Abdomen* rather fusiform, not wider than elytra; very finely and indistinctly punctate and pubescent. *Male*, seventh sternite feebly divided into three lobes by shallow angular emarginations, before which are clusters of hairs; eighth sternite with a shallow emargination, rounded at apex and with apical angles rounded. *Female*, seventh and eighth sternites not emarginate. Length, 1¾ to 2 mm.

Type locality.—Colombia. Of *atratula*, province of Buenos Aires, Argentina; of *pertenuis*, Cayamas, Cuba; of *fragilis*, Guatemala; of *minuta*, San Miguel, Pearl Islands, Panama; of *delicatula*, Selma, Alabama.

Types.—Either in the Hope Museum, Oxford, or the Zoologische Museum, Berlin. Of *atratula*, in the Museo Argentino Ciencias Naturales, Bernard Rivadavia, Buenos Aires; of *pertenuis* and *delicatula*, in the Casey collection in the United States National Museum; of *fragilis* and *minuta*, in the British Museum.

Records.—The following are the records known to me:

Cuba: (Leng and Mutchler, 1914, as *pertenuis*), Cayamas (Casey, 1910, as *pertenuis;* Schwarz, in U.S.N.M.).

Antigua: (Blackwelder station 275B).

Dominica: (Blackwelder stations 237, 252).

St. Lucia: (Blackwelder stations 213, 220D, 226).

Trinidad: (British Museum), St. Augustine (Weber, in M.C.Z.), Tunapuna (Weber, in M.C.Z.).

South America: BRAZIL (British Museum), ARGENTINA (Lynch, 1884, as *atratula*), COLOMBIA (Erichson, 1840).

Central America: PANAMA (Sharp, 1886, as *minuta*), GUATEMALA (Sharp, 1886, as *fragilis*).

North America: ALABAMA (Casey, 1905, as *delicatula*), FLORIDA (Casey collection in U.S.N.M.), INDIANA (Blatchley, 1910).

Specimens examined.—I have examined 3 specimens in the British Museum, 2 in the Museum of Comparative Zoology, 5 in the Casey collection and 2 others in the United States National Museum, and 18 collected by me in 1935–37. As the above synonymy was not known to me when I visited the British Museum, I did not examine the types of Sharp's two species from Central America.

Remarks.—This is an unusually small and obscure species, which shows some variation in certain characters. Its lengthy synonymy is due more to the confusion in generic names than to anything else, although most of the synonyms have been recorded only once each. It is distinguished from our other species by the modification of the seventh sternite in the male and by the dense sculpture. It belongs in the subgenus *Sciocharella* as herein defined.

The name *atratula* is listed as a synonym on the authority of Fauvel. The two Casey species are placed as synonyms after a careful examination of the types. Sharp's two species are included on the basis of the original descriptions and a note by Fauvel.

My specimens were found in dung, in decaying cocoa pods, in a pile of dead grass, and flying at dusk.

XXXII. Genus LITHOCHARIS Boisduval and Lacordaire

Lithocharis Boisduval and Lacordaire, 1835, pp. 420, 431.
Lithocharius Kraatz, 1857a, p. 664 (misspelling).
Litocharis Hagens, 1865, p. 110 (misspelling).
Lithocaris Holder, 1882, pp. 78, 97 (misspelling).
Metaxyodonta Casey, 1886a, p. 29.
Lithocarus Knaus, 1904, p. 154 (misspelling).
Arthocharis Cameron, 1921, p. 372.
Subgenus *Pseudomedon* Mulsant and Rey, 1878, p. 122.
    Ramona Casey, 1886b, p. 213.
Subgenus *Ophiomedon* Sharp, 1886, p. 567.
Subgenus *Stilocharis* Sharp, 1886, p. 576.

Genotypes.—*Paederus ochraceus* Gravenhorst=*Lithocharis ochracea* (Gravenhorst) (designated by Thomson, 1861). Of *Arthocharis*, *Paederus ochraceus* Gravenhorst=*Arthocharis ochracea* (Gravenhorst) (designated by Blackwelder, 1939); of *Metaxyodonta*, *M. testacea* Casey (monobasic); of *Pseudomedon*, *Lathrobium obsoletum* Nordmann=*Pseudomedon obsoletum* (Nordmann) (designated by Blackwelder, 1939); of *Ramona*, *R. capitulum* Casey (monobasic); of *Ophiomedon*, *O. stipes* Sharp (designated by Blackwelder, 1939); of *Stilocharis*, *S. longula* Sharp (monobasic).

Diagnosis.—Body moderately slender, parallel, moderately convex; head generally finely and irregularly but densely punctate, with or without ground sculpture; eyes generally at less than their length from base; antennae posteriorly flexile, not strongly geniculate, basal segment not much elongate, first two not much larger than rest; labrum with a median tooth which is prominent on the upper surface or with paired denticles; fourth segment of maxillary palpus very small, subulate; gular sutures variable, prosternum carinate in part, sometimes prolonged under the coxae but not dilated laterally;

hypomera sometimes feebly lobed behind the coxae; anterior coxal cavities entirely open behind, confluent; front coxae large, exserted; middle coxal cavities confluent; posterior coxae contiguous, conical; first and second abdominal sternites absent; seventh sternite of male sometimes slightly emarginate and with a ctenidium along posterior margin; eighth sternite of male emarginate.

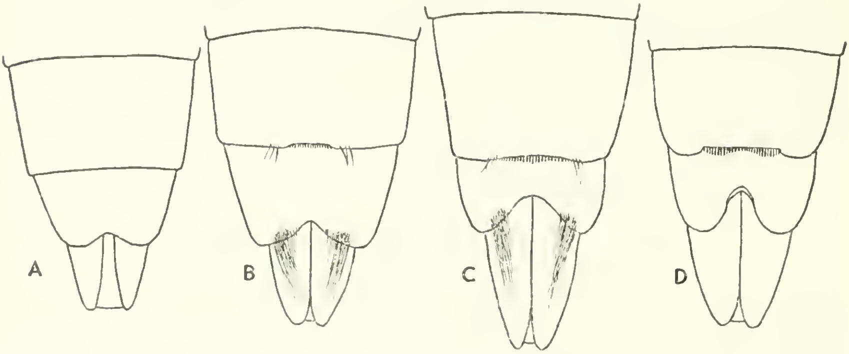

FIGURE 1.—Apical abdominal sternites of males of *Lithocharis:* A, *L. dorsalis* Erichson; B, *L. secunda,* new species; C, *L. ochracea* (Gravenhorst); D, *L. sororcula* Kraatz.

Remarks.—This genus has been a source of difficulty for many years and has been given very different status by various writers. Casey separated it as a subtribe distinct from *Medon* and most other writers have considered it to be a subgenus of *Medon.* In my revision of the Paederini (Blackwelder, 1939) I endeavored to separate these two as valid genera and assigned several subgenera to each. The genotype of *Lithocharis* is nearly cosmopolitan, but the generic characters are not pronounced or obvious.

I assign nine West Indian species to this genus, three of them new. Of these, five belong in the typical subgenus, three in the subgenus *Stilocharis,* and one in the subgenus *Ophiomedon.* The subgenus *Pseudomedon* is apparently not represented in the West Indies.

I have examined 653 examples of this genus from the West Indies. Of these, 270 are in the British Museum, 35 in Dr. Cameron's collection, 40 in the United States National Museum, and over 300 collected by me in 1935–37.

KEY TO WEST INDIAN SPECIES OF LITHOCHARIS [15]

1. Gular sutures converging posteriorly.. 2
   Gular sutures parallel along middle.. 9. heres
2. Labrum with a median tooth or prominence.. 3
   Labrum with two denticles near center.. 6
3. Seventh sternite of male with a ctenidium on posterior margin.......... 4
   Seventh sternite of male unmodified.. 4. volans

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[15] The species *L. mendacia* Cameron is unknown to me, and I am unable to include it in the key since the necessary characters are not mentioned in Dr. Cameron's description. It is placed as No. 5 in the text.

4.	Eighth sternite with two groups of long golden hairs posteriorly	5
	Eighth sternite without groups of long golden hairs posteriorly	1. sororcula
5.	Ctenidium of equal spinules, occupying less than one-third of width of segment	3. secunda
	Ctenidium with spinules smaller at ends, occupying more than one-third of width of segment when viewed from below	2. ochracea
6.	Anterior tarsi dilated	8. posticata
	Anterior tarsi not dilated	7
7.	Pronotum with midline shining, indistinctly sculptured	6. limbata
	Pronotum with midline sculptured about as densely as rest	7. dorsalis

1. LITHOCHARIS SORORCULA Kraatz

Lithocharis sororcula KRAATZ, 1859b, p. 140.—BERNHAUER and SCHUBERT, 1912, p. 243.—CAMERON, 1928, pp. 245, 247; 1931, pp. 156, 162; 1933, p. 40.—BLACKWELDER, 1939a, p. 102.

Medon sororculum (Kraatz) BERNHAUER and SCHUBERT, 1912, p. 243.—SCHEERPELTZ, 1933, p. 1262.—BLACKWELDER, 1939a, p. 102.

Description.—Agreeing in all respects with the description of *ochracea* except for the male characters. *Male*, seventh sternite with a slight emargination posteriorly throughout the middle half of the margin and occupied by a ctenidium of black fimbriae which are shorter in the middle and at the ends, also with a few unusually large setae projecting posteriorly over the ctenidium from the posterior surface of the segment; eighth sternite with a rather deep rounded emargination which is narrowly bordered at apex, but without trace of the large clusters of golden hair found in *ochracea*. Length, 3 to 4 mm.

Type locality.—Ceylon.

Types.—Presumably in the Deutsche Entomologische-Institut, Berlin-Dahlem.

Records.—The following are the records known to me:

Jamaica: Santa Cruz (Blackwelder station 421), Milk River (Blackwelder station 415), Spanish Town (Blackwelder station 377).
Puerto Rico: Salinas (Blackwelder station 60), San Juan (Blackwelder stations 345, 353B), Lajas and Bokueron (Dozier, in U.S.N.M.).
St. Croix: (Blackwelder stations 317, 325, 330, 331, 341).
St. Kitts: (Blackwelder stations 297, 299, 300, 302, 305, 306, 312).
Antigua: (Blackwelder stations 275A, 275B, 280B, 283, 284, 285B, 287, 290).
Montserrat: (Blackwelder stations 265B, 267B).
Guadeloupe: Basse Terre (Blackwelder stations 70, 75), Grande Terre (Blackwelder station 86).
St. Lucia: (Blackwelder station 225).
Barbados: (Blackwelder stations 188, 194, 196).
St. Vincent: (Blackwelder stations 180, 185).
Grenada: (Blackwelder stations 131, 150, 151).
Orient: CEYLON, INDIA, SINGAPORE (Kraatz, 1859; Cameron, 1928, 1931).

Specimens examined.—I have examined 5 examples in Dr. Cameron's collection, 4 in the United States National Museum, and 90 collected by me in 1935–37.

Remarks.—Although very similar to *ochracea* in all other characters I have observed, this species is very distinct by the male structure of the seventh abdominal sternite. The West Indian examples seem to be exactly similar to the oriental ones as figured by Dr. Cameron (1931). It has not been possible to associate definitely with these males any of the females of the *ochracea* complex. This species belongs in the subgenus *Lithocharis* s. str.

I have collected this species from horse manure and cattle dung, in rotting grass, and flying at dusk.

2. LITHOCHARIS OCHRACEA (Gravenhorst)

Paederus ochraceus Gravenhorst, 1802, pp. 58, 60.
Paederus rubricollis Gravenhorst, 1806, p. 138.
Sunius rubricollis (Gravenhorst) Stephens, 1829, p. 287.
Paederus obscurus Kirby, MS.—Stephens, 1829, p. 287.
Sunius ochraceus (Gravenhorst) Stephens, 1829, p. 282.
Rugilus rubricollis (Gravenhorst) Mannerheim, 1830, p. 40.
Lithocharis ochracea (Gravenhorst) Boisduval and Lacordaire, 1835, pp. 432, 433.
Sunius brunniceps Fairmaire, 1849, p. 290.
Lithocharis fastidiosa Fairmaire and Germain, 1861, p. 438.
Lithocharis ochrea Summers, 1873, p. 192 (misspelling).
Lithocharis brunniceps (Fairmaire) Fauvel, 1878, p. 66.
Medon ochracea (Gravenhorst) Chyzer, 1885, pp. 10, 19.
Metaxyodonta alutacea Casey, 1886a, p. 30.
Metaxyodonta quadricollis Casey, 1886a, pp. 31, 32.
Lithocharis alutacea (Casey) Casey, 1886b, p. 232.
Lithocharis quadricollis (Casey) Casey, 1886b, p. 232.
Lithocharis rubricollis (Gravenhorst) Seidlitz, 1891, p. 373.
Medon (Lithocharis) ochraceus (Gravenhorst) Deville, 1907, p. 141, 149.
Medon (Lithocharis) alutacea (Casey) Bernhauer and Schubert, 1912, p. 242.
Medon (Lithocharis) brunniceps (Fairmaire) Bernhauer and Schubert, 1912, p. 242.
Medon (Lithocharis) fastidiosus (Fairmaire and Germain) Bernhauer and Schubert, 1912, p. 242.
Medon (Lithocharis) quadricollis (Casey) Bernhauer and Schubert, 1912, p. 243.
Medon (Lithocharis) rubricollis (Gravenhorst) Bernhauer and Schubert, 1912, p. 243.
Medon (Arthocharis) ochracea (Gravenhorst) Cameron, 1921, p. 372.

Description.—Color variable but generally as follows: Head black, pronotum, elytra, and abdomen rufous, elytra and abdomen frequently clouded with castaneous. *Head* scarcely wider than long; eyes moderate, separated from base by about their length or a little less; posterior angles very broadly rounded, sides and base not distinct; neck about two-fifths as wide as head; gular sutures moderately separated, straight, converging from apex to base; labrum not distinctly emarginate, with a very small and blunt tooth at middle not projecting beyond the margin but being the end of a feeble ridge on the upper surface; with a few scattered punctures obscured by very irregular ground sculpture, which is chiefly composed of minute punctulae. *Pronotum* as broad as long, slightly wider than head; sides nearly parallel, angles rounded; without punctures but with rather flat tuberculi throughout; without ground sculpture. *Elytra* as long as wide, one-fourth wider than pronotum; with fine and moderately dense tuberculate sculpture but not with distinct tuberculi separated by smooth surface as on pronotum. *Abdomen* very finely and densely punctured and pubescent. *Male*, seventh sternite at middle of posterior margin with a comb of short black setae occupying about the middle half of the segment and directed strongly inwardly to give the appearance of a narrow striated band on the posterior border of the segment, the setae diminishing in size at the sides and bounded by a small group of hairs; eighth sternite with a rather broadly rounded notch, and laterally with two thick brushes of very long golden hairs. *Female*, sternites not modified. Length, 3 to 4 mm.

Type locality.—Germany, duchy of Brunswick. Of *rubricollis*, not recorded but presumably Germany; of *brunniceps*, "Taiti"; of *fastidiosa*, Santiago, Chile; of *alutacea*, Santa Clara County, California; of *quadricollis*, Lake County, California.

Types.—Presumably in the Zoologische Museum, Berlin. Of *rubricollis*, same; of *brunniceps*, possibly in the Muséum Royal d'Histoire Naturelle de Belgique, Brussels; of *fastidiosa*, same; of *alutacea*, holotype, male, U.S.N.M. No. 38207, in the Casey collection in the United States National Museum; of *quadricollis*, holotype, male U.S.N.M. No. 38208, in the Casey collection in the United States National Museum.

Records.—The following are the records known to me:

Jamaica: (Cameron, 1931), Santa Cruz (Blackwelder station 421), Spanish Town (Blackwelder station 377), May Pen (Blackwelder station 425C).
Puerto Rico: Salinas (Blackwelder station 60), San Juan (Blackwelder station 345), Lajas, Guanica, Ponce (Dozier, in U.S.N.M.).
St. John: (Erichson, 1840).
St. Kitts: (Blackwelder stations 302, 306).
Antigua: (Blackwelder stations 281A, 287).
Guadeloupe: Basse Terre (Blackwelder station 75), Grande Terre (Blackwelder station 86).
Dominica: (Blackwelder stations 237, 240, 252).
Barbados: (Blackwelder stations 194, 195).
Grenada: (Blackwelder station 150; British Museum; U.S.N.M.).
South America: BRAZIL (Erichson, 1840), CHILE (Fauvel, 1868; Fairmaire, 1861, as *fastidiosa*).
Central America: GUATEMALA (Sharp, 1886).
North America: CALIFORNIA (Casey, 1886, as *alutacea* and *quadricollis*).
Europe: (Erichson, 1839a, 1840; Deville, 1907; Fowler, 1888).

Africa: (Gridelli, 1930), ZANZIBAR, MAURITIUS (Cameron, 1931), MADEIRA, CANARIES (Wollaston, 1854–65).

Orient: NEW GUINEA, TAHITI, CELEBES, CEYLON, INDIA, CHINA (Fauvel, 1878), INDIA (Cameron, 1931).

Specimens examined.—Although I have seen numerous specimens labeled *ochracea* in all collections, and many of these are undoubtedly properly identified, the only specimens of which I have examined the male characters are seven in the United States National Museum and 27 collected by me in 1935–37.

Remarks.—Only males have been included in the records of this and related species because of the difficulty of separating the females. The male characters agree closely with those illustrated by Cameron (1931) and are readily distinguished from all others I have seen.

This species is almost cosmopolitan, having been recorded from nearly every part of the world except Australia and the northern parts of Europe and Asia. Its extensive synonymy is in large part due to this distribution, but it should be noted that not all the synonymy has been specifically checked in respect to the male characters. I have examined the types of *alutacea* and *quadricollis* in the Casey collection and find them to be identical with *ochracea* in this respect. This species is, of course, the genotype of the subgenus *Lithocharis* s. str.

I have collected this species from horse manure and cattle dung, in cocoa pods, and flying at dusk.

3. LITHOCHARIS SECUNDA, new species

Description.—Agreeing in all respects with the description of *ochracea* except for the male characters. *Male*, seventh sternite with a slight abrupt emargination of the posterior margin occupying the center fourth and filled with a ctenidium of short equal black fimbriae, strongly depressed entad and abruptly limited laterally, with a few abnormally large setae along margin at sides of the ctenidium; eighth sternite with a rather broad rounded emargination, much wider than deep, and with a large brush of long golden hairs on each side. Length, 2½ to 4½ mm.

Type locality.—Jamaica, between Luana and Newport by way of Lacovia, Santa Cruz, and Spur Tree, parishes of St. Elizabeth and Manchester.

Types.—Holotype and 32 paratypes, males, U.S.N.M. No. 52396, collected by Chapin and Blackwelder on February 24, 1937 (holotype), and during 1935–37. The paratypes are also from the localities listed below.

Records.—The following are the records known to me:

Jamaica: Milk River (Blackwelder station 415), Spanish Town (Blackwelder station 377), May Pen (Blackwelder station 425C), Black River (Blackwelder station 420), Newport (Blackwelder station 412A), Santa Cruz (Blackwelder station 421).

Hispaniola: DOMINICAN REPUBLIC: San José de las Matas (Blackwelder station 38).
Puerto Rico: Salinas (Blackwelder station 60).
St. Croix: (Blackwelder stations 330, 339).
Antigua: (Blackwelder stations 275A, 280B, 285B, 290).
Montserrat: (Blackwelder station 270).
Guadeloupe: Basse Terre (Blackwelder station 70).
St. Lucia: (Blackwelder station 213).

Specimens examined.—I have seen only the 33 types.

Remarks.—This species is rather close to *ochracea* in its male characters as well as all other characters observed. It differs constantly, however, in the form and size of the ctenidium of the seventh sternite and can be distinguished at a glance even with low magnification. As with the other species of this complex no females can be definitely associated with these males. It belongs in the subgenus *Lithocharis* s. str.

I have collected this species from cattle dung and horse manure and flying at dusk.

4. LITHOCHARIS VOLANS, new species

Description.—Agreeing in all respects with the description of *ochracea* except for the male characters. *Male*, seventh sternite with a very slight but broad emargination; eighth sternite with a shallow but angular emargination with the lateral angles rounded. Length, 3 to 3½ mm.

Type locality.—Jamaica, Hope Gardens, Kingston.

Types.—Holotype, male, U.S.N.M. No. 52397, collected by me on July 4, 1935, and one paratype collected by Chapin and Blackwelder on February 24, 1937, near Santa Cruz, parish of St. Elizabeth.

Records.—The following are the records known to me:

Jamaica: Kingston (Blackwelder station 1C), Santa Cruz (Blackwelder station 421), Milk River (Blackwelder station 415).
[**Puerto Rico:** Salinas (Blackwelder station 60).]

Specimens examined.—I have seen only the two types and three other specimens mentioned below.

Remarks.—This species differs from all the others of this group known to me in lacking any ctenidial modification of the seventh sternite in the male, but the presence of the single median tooth appears to be sufficient to establish it as a *Lithocharis*, at least at present.

A second specimen from Santa Cruz differs from the type in having the emargination of the eighth sternite broader, deeper, and rounded at apex. The specimen from Puerto Rico also differs in the same character, having the emargination much more abrupt, scarcely wider than deep, and with all the angles narrowly rounded.

These specimens were collected from dung and manure, and flying at dusk.

5. LITHOCHARIS MENDACIA Cameron

Lithocharis mendacius Cameron, 1923, p. 399.
Medon (Lithocharis) mendacius (Cameron) Scheerpeltz, 1933, p. 1261.

Description.—"Black, greasy-lustrous, the thorax pitchy-red, the elytra shining castaneous-red, largely infuscate posteriorly. Abdomen brown. Antennae and legs reddish testaceous. Length 4.4 mm. Closely allied to *L. mendax* Shp., and differing only in the following points: The antennae are a little shorter and the penultimate joints more transverse, the eyes are smaller, the head is densely coriaceous, with a few scarcely visible obsolete punctures, the thorax is sculptured similarly to the head, but the fine obsolete punctures are more numerous; the elytra are differently coloured, the abdomen is reddish brown, ♂ unknown." (From Cameron.)

Type locality.—Jamaica.

Types.—Unique female in the collection of Dr. Cameron.

Records.—The following is the only record known to me:

Jamaica: (Cameron, 1923).

Specimens examined.—I have seen only the unique type, which I examined briefly in Dr. Cameron's collection.

Remarks.—I am unable to place this species either in my key or among my specimens because of the absence of the male characters. The descriptions seems to indicate that it is a *Lithocharis* in the strict sense.

I find no record of its habits.

6. LITHOCHARIS LIMBATA Erichson

Lithocharis limbata Erichson. 1840, p. 621.—Sharp, 1886, pp. 550, 551.—Leng and Mutchler, 1914, p. 405.
Medon limbatus (Erichson) Bernhauer and Schubert, 1912, p. 242.—Blackwelder, 1939a, p. 102.
Lithocharis (Stilocharis) limbata Erichson, Blackwelder, 1939a, p. 102.

Description.—Rufopiceous, elytra castaneous to rufocastaneous with sides and apex testaceous. abdomen castaneous to rufocastaneous. *Head* subquadrate, base somewhat diagonal on each side, angles narrowly rounded; eyes large, separated from base by about half their length; labrum with a broad shallow emargination with two moderate denticles; gular sutures moderately separated in front, very approximate behind; with punctures almost completely obscured by dense but fine ground sculpture. *Pronotum* with irregular and somewhat indistinct punctures separated by shining intervals, midline shining, not distinctly sculptured. *Elytra* rather densely and tuberculately punctured. *Anterior tarsus* not dilated. *Male*, eighth sternite truncate. *Female*, eighth sternite prominently rounded. Length 3½ to 4½ mm.

Type locality.—Colombia.

Types.—Either in the Hope Museum, Oxford, or the Zoologische Museum, Berlin.

Records.—The following are the records known to me:

Hispaniola: HAITI, Dessalines (Darlington, in M.C.Z. and U.S.N.M.).
Puerto Rico: San Juan (Blackwelder stations 45, 345, 353B), Mayagüez (Blackwelder station 50B), Villalba (Blackwelder station 62).
St. Croix: (Blackwelder station 330).
Guadeloupe: Basse Terre (Blackwelder stations 75, 77B), Grande Terre (Blackwelder station 86).
Dominica: (Blackwelder stations 235B, 236, 237, 245, 248A, 246B; Busck, in U.S.N.M.).
Martinique: (British Museum).
St. Lucia: (Blackwelder stations 207C, 220C, 220D, 221, 225, 226).
Barbados: (Blackwelder stations 193B, 194, 195, 188, 201A).
St. Vincent: (British Museum; Cameron collection; Blackwelder stations 165, 168, 180, 185).
Grenada: (British Museum; Cameron collection; Blackwelder stations 137, 139).
Trinidad: St. Joseph (Blackwelder station 130), Manzanilla (Blackwelder station 103A).
South America: Colombia (Erichson, 1840; Sharp, 1886; British Museum).
Central America: GUATEMALA (Sharp, 1886; British Museum), PANAMA (Sharp, 1886; British Museum; Bierig, in the Cameron collection).

Specimens examined.—I have examined 239 specimens from the West Indies in the British Museum, 7 in the collection of Dr. Cameron, 1 in the Museum of Comparative Zoology, 8 in the United States National Museum, and 100 collected by me in 1935-37; also a few specimens from Central America.

Remarks.—The identification of these West Indian specimens with the Colombian species has not been verified by me, although I have examined the latter briefly without noting any differences. The species is somewhat variable in color but can be separated by the characters in the key. It belongs in the subgenus *Stilocharis.*

I have collected it from dung, manure, and excrement, and from rotten fruit, decaying cocoa pods, and fermenting cocoanut husks.

7. LITHOCHARIS DORSALIS Erichson

Lithocharis dorsalis ERICHSON, 1840, p. 616.—FLEUTIAUX and SALLÉ, 1889, p. 380.—LENG and MUTCHLER, 1914, p. 405—WOLCOTT, 1924, p. 78; 1936, p. 197.
Medon (Lithocharis) dorsalis (Erichson) BERNHAUER and SCHUBERT, 1912, p. 242.
Lithocharis obfuscata CAMERON, 1923, p. 399.
Medon (Lithocharis) obfuscatus (Cameron) SCHEERPELTZ, 1933, p. 1261.

Description.—Head rufopiceous, pronotum rufous, elytra castaneous to testaceous with sides and apex paler, abdomen castaneous. *Head* subquadrate with posterior angles rounded and often robust; eyes at their length or more from base; labrum broadly emarginate, with two blunt denticles within the emargination; gular sutures widely separated at base and apex but most approximate behind middle; with discrete though somewhat indefinite fine punctures, with vague ground sculpture on shining intervals. *Pronotum* punctured similarly to head; midline not distinctly shining. *Elytra* feebly tuberculately punctured but not densely tuberculately sculptured. *Anterior* tarsus not dilated. *Male*, eighth sternite with a rounded emargination about five times or more as wide as deep. *Female*, eighth sternite not modified. Length, 2¼ to 2¾ mm.

Type locality.—Puerto Rico. Of *obfuscatus*, Jamaica.

Types.—Either in the Hope Museum, Oxford, or the Zoologische Museum, Berlin. Of *obfuscatus*, type and 11 others in the collection of Dr. Cameron, two cotypes and one other in the British Museum.

Records.—The following are the records known to me:

Cuba: Cayamas (Schwarz, in U.S.N.M.).

Jamaica: (Cameron, 1923; British Museum; Cameron collection), Spanish Town (Blackwelder station 377), Newport (Blackwelder station 412A), Balaclava (Blackwelder station 397B), Trinityville (Blackwelder station 428), Milk River (Blackwelder station 415), Moneague (Blackwelder station 375), May Pen (Blackwelder station 425C), Whitfield Hall in Blue Mountains (Darlington, in M.C.Z. and U.S.N.M.).

Hispaniola: HAITI, Ennery (Darlington, in M.C.Z.); DOMINICAN REPUBLIC, Constanza (Darlington, in M.C.Z.), Mount Quita (Darlington, in M.C.Z.).

Puerto Rico: (Erichson, 1840; Leng and Mutchler, 1914; Wolcott, 1924, 1936), Adjuntas (Blackwelder station 48C), Maricao (Blackwelder station 47A), Villalba (Blackwelder station 62), San German (Dozier, in U.S.N.M.).

St. Croix: (Blackwelder station 325).

Antigua: (Blackwelder station 292).

Montserrat: (Hubbard, in U.S.N.M.).

Guadeloupe: (Fleutiaux and Sallé, 1889; Leng and Mutchler, 1914).

St. Lucia: (Blackwelder stations 207B, 220D, 226, 230).

St. Vincent: (British Museum; Cameron collection).

Grenada: (Blackwelder station 132; British Museum; Cameron collection).

Trinidad: (Fry collection, in British Museum), Manzanilla (Blackwelder stations 102, 104A), Moruga (Blackwelder station 111).

Specimens examined.—I have examined 24 specimens in the British Museum, 22 in the collection of Dr. Cameron, 6 from the Museum of Comparative Zoology, 14 in the United States National Museum, and 51 collected by me in 1935–37.

Remarks.—This species has not been reported under Erichson's name since the original description. The description seems to apply well to the species named *obfuscatus* by Cameron, except for the statement "tarsis . . . anticis leviter dilatatus." This is perhaps an error, since the tarsus is rather stout and flattened beneath even in these "undilated" forms. It belongs in the subgenus *Stilocharis*.

This is a variable species, but I have not been able to find any basis for dividing it.

All specimens from the West Indies that I have seen labeled *infuscatus* Erichson belong to this species, and if they are actually *infuscatus* then *obfuscatus* becomes a synonym. I do not have South American examples of *infuscatus* for comparison.

My specimens were collected from decaying cocoa pods, from rotting banana stalks, from dung, and flying at dusk.

8. LITHOCHARIS POSTICATA Erichson

Lithocharis posticata ERICHSON, 1840, p. 619.—LENG and MUTCHLER, 1914, p. 405.—WOLCOTT, 1924, p. 78; 1936, p. 197.

Medon (Lithocharis) posticatus (Erichson) BERNHAUER and SCHUBERT, 1912, p. 243.

Description.—Piceous, elytra testaceous with apical third blackish, apex of abdomen testaceous. *Head* a little broader than pronotum; posterior angles somewhat rounded; labrum bidenticulate; densely punctate, smooth in front at middle, finely sparsely pubescent, shining. *Pronotum* a little narrower than elytra, slightly wider than long, moderately narrowed posteriorly; densely but not very finely punctate, with smooth midline; finely and sparsely pubescent, shining. *Elytra* one-third longer than pronotum; densely finely punctate, finely pubescent. *Abdomen* very finely punctate, with longer pubescence. *Anterior tarsus* feebly dilated. *Male*, eighth sternite triangularly excised. *Female*, unknown. Length, 2 mm. (From Erichson.)

Type locality.—Puerto Rico.

Types.—Either in the Hope Museum, Oxford, or the Zoologische Museum, Berlin.

Records.—The following is the only record known to me:

Puerto Rico: (Erichson, 1840; Leng and Mutchler, 1914; Wolcott, 1924, 1936).

Specimens examined.—I have seen no examples of this species.

Remarks.—Apparently this species has never been seen since it was described by Erichson. I am not able to refer to it definitely any of the specimens before me and therefore include it as an unknown species. It appears to belong to the subgenus *Stilocharis*.

I find no record of its habits.

9. LITHOCHARIS HERES, new species

Description.—Rufotestaceous. *Head* one-ninth wider than long, not emarginate at base, sides evenly rounded into base; eyes moderate, separated by more than their length from base; labrum with two denticles within a broad emargination; gular sutures moderately close, parallel along middle, diverging at both ends; with sparse punctures (possibly somewhat umbilicate) completely obscured by very dense scaly ground sculpture. *Pronotum* as wide as head, nearly as long as wide; sides feebly converging with all angles strongly rounded; disk without impressions or midline; with punctures and sculpture as on head. *Elytra* not distinctly punctate but with tiny elevated setigerous tuberculi, rather dense and even; pubescence moderately long. *Anterior tarsus* feebly dilated. *Abdomen* finely asperately punctate. *Male*, seventh sternite not modified; eighth with a small rounded emargination. *Female*, sternites not modified. Length, 3¼ to 3½ mm.

Type locality.—Cuba, Cayamas, 15 miles west-northwest of Cienfuegos, province of Santa Clara.

Types.—Holotype, male, and five paratypes, U.S.N.M. No. 52409, collected by E. A. Schwarz on January 13 (also January 6, March 2, and December 19) of 1902, 1903, or 1904. One paratype has been deposited in the collection of Dr. Cameron and one in my own collection.

Records.—The following is the only record known to me:

Cuba: Cayamas (Schwarz, in U.S.N.M.), Soledad (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the eight types in the United States National Museum and one other example in the Museum of Comparative Zoology.

Remarks.—The position of this species is not altogether certain. The dense ground sculpture obscures the punctures to a large extent, but it is possible that it belongs closer to *Medon*. It is chiefly distinguished by the form of the gular sutures. It belongs in the subgenus *Ophiomedon*.

I have no record of its habits.

XXXIII. Genus ADEROCHARIS Sharp

Aderocharis Sharp, 1886, p. 552.
Subgenus *Panscopaeus* Sharp, 1889, p. 262.
Subgenus *Dorocharis* Blackwelder, 1939a, p. 99.

Genotypes.—*Paederus corticinus* Gravenhorst = *Aderocharis corticinus* (Gravenhorst) (designated by Blackwelder, 1939a). Of *Dorocharis*, *Aderocharis* (*Dorocharis*) *chapini* Blackwelder (monobasic and original designation); of *Panscopaeus*, *P. lithocharoides* Sharp (monobasic).

Diagnosis.—Body rather stout, moderately convex, head generally emarginate at base, with angles prominent, punctures distinctly umbilicate (in the genotype) or dense and of indefinite shape, with or without ground sculpture; eyes at more than their length from base; antennae posteriorly flexile, not strongly geniculate, basal segment not much elongate, first two not much larger than rest; labrum with median tooth but without paired denticles; fourth segment of maxillary palpus very small, subulate; gular sutures not at all united, rather widely separated in front but very approximate posteriorly; punctures of pronotum as on head or tuberculate; prosternum carinate in part, not greatly prolonged between coxae; hypomera prolonged in a short lobe partially behind the coxae; anterior coxal cavities open behind, confluent; front coxae very large, exserted; middle coxal cavities confluent; posterior coxae contiguous, conical; first and second abdominal sternites absent, seventh sternite more or less modified in the male, usually biemarginate, eighth emarginate in male only; anterior tarsus dilated.

Remarks.—This genus is not strongly distinguished from *Lithocharis* and may be only a subgenus of it. I am led to keep it separate because of the ease with which it can be separated at a glance by its much greater size. The male characters are also quite different and, as in *Lithocharis*, are the only satisfactory means of separating many of the species.

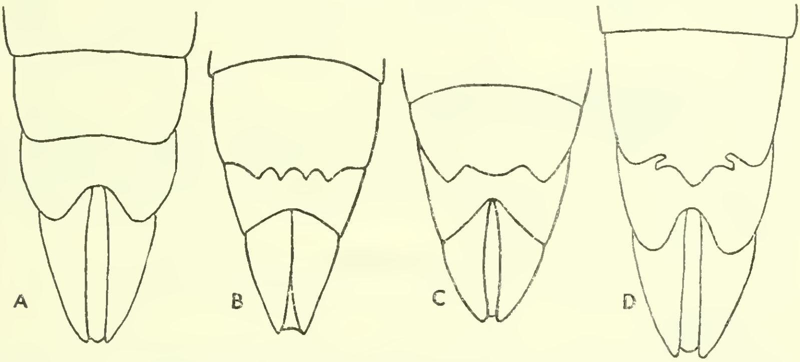

Figure 2.—Apical abdominal sternites of males of *Aderocharis:* A, *A. cubensis*, new species; B, *A. suturalis*, new species; C, *A. dubitans*, new species; D, *A. conifer* Cameron.

I have examined 59 examples from the West Indies. Of these 19 are in the British Museum, 11 in the collection of Dr. Cameron, 5 in the Museum of Comparative Zoology, 8 in the United States National Museum, and 16 were collected by me in 1935–37.

KEY TO WEST INDIAN SPECIES OF ADEROCHARIS

1. Seventh abdominal sternite of male emarginate ---------- 2
   Seventh abdominal sternite not at all emarginate ---------- 1. cubensis
2. Seventh abdominal sternite of male biemarginate ---------- 3
   Seventh abdominal sternite of male with three emarginations -- 4. suturalis
3. Emarginations separated by a large process ---------- 3. conifer
   Emarginations feebly separated by a flat arc ---------- 2. dubitans

I. ADEROCHARIS CUBENSIS, new species

Description.—Rufocastaneous. *Head* not distinctly emarginate at base nor with very prominent angles but eyes small and separated from base by one-half more than their length; gular sutures convergent toward base but separated throughout in the male; antennal segments becoming distinctly broader apically; with very fine and dense but distinctly umbilicate punctures, and with a few larger scattered umbilicate punctures; with irregular ground sculpture at sides posteriorly. *Pronotum* with a poorly defined smooth midline; with umbilicate punctures and sculpture at sides as on head. *Elytra* not distinctly punctate, but with rather dense fine tuberculi, sometimes arranged in irregular transverse rows, and bearing fine short hairs. *Abdomen* rather densely and finely but distinctly muricately punctured; with dense short pubescence. *Male*, seventh sternite slightly sinuate posteriorly but not at all emarginate; eighth sternite with a very large triangular emargination. *Female*, sternites not modified. Length, 4½ mm.

Type locality.—Cuba, Cayamas, 15 miles west-northwest of Cienfuegos, province of Santa Clara.

Types.—Holotype, male, U.S.N.M. no. 52398, collected by E. A. Schwarz on February 15 of 1902, 1903, or 1904; two paratypes, female, in the Museum of Comparative Zoology, one in the United States National Museum, from Soledad.

Records.—The following are the records known to me:

Cuba: Cayamas (Schwarz, in U.S N.M.), Soledad (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the four types.

Remarks.—This species is unique in its feeble male characters as well as in the shape of the head. The holotype is slightly immature, being of paler color and having the punctation a little less distinct and deep, though of the same type and density. The examination of the species related to *Lithocharis* by use of the male genitalia may throw additional light on their proper position, but at present this species appears to be best placed in this genus.

I have no record of its habits, although one specimen was taken at light.

2. ADEROCHARIS DUBITANS, new species

Description.—Head black, pronotum and abdomen piceous, elytra and apex of abdominal segments rufopiceous. *Head* emarginate posteriorly, with angles moderately prominent; eyes small, separated from base by less than one-half more than their length; gular sutures in male converging posteriorly, never very distant; densely and moderately finely punctate, punctures not definite in shape, with large setigerous punctures at sides, pubescence fine and dense; without distinct ground sculpture. *Pronotum* with distinct narrow smooth midline; with dense tuberculi unusually flat, appearing almost like small umbilicate punctures; with short pubescence but no ground sculpture on disk. *Elytra* with tuberculi very dense, scarcely distinguishable, sometimes forming transverse rows; apparently with additional ground sculpture; pubescence dense and distinct. *Abdomen* very minutely and densely punctulate and pubescent; with indistinct ground sculpture. *Male*, seventh sternite with two emarginations separated by a broad feebly rounded lobe and bounded laterally by two broadly triangular processes; eighth with a deep rounded emargination nearly twice as wide as deep. *Female*, unknown. Length, 6¼ mm.

Type locality.—Trinidad, 5 miles west-southwest of Manzanilla junction on the Plum Road.

Types.—Holotype, male, U.S.N.M. No. 52399, collected by me on December 18, 1935.

Records.—The following are the records known to me:

Trinidad: Manzanilla (Blackwelder station 104A).

Specimens examined.—I have seen only the unique type.

Remarks.—This species is distinguished principally by the male characters. Three specimens in the British Museum under the name *Medon latro* Sharp are probably this species, although I have not examined the male characters. They were taken at Caparo, Trinidad, by Klages in June 1914.

It is possible that this species or the following one is the same as *A. latro* Sharp, but I am not able to form an opinion without seeing the male characters of the type. The latter is in the British Museum and is mounted under glass.

The type was collected from decaying cocoa pods.

3. ADEROCHARIS CONIFER Cameron

Aderocharis conifer Cameron, 1913b, p. 345.—Leng and Mutchler, 1917, p. 199.—Blackwelder, 1939a, p. 102.

Aderocharis obscurior Cameron, 1913b, p. 346.—Leng and Mutchler, 1917, p. 199.—Blackwelder, 1939a, p. 102.

Medon conifer (Cameron) Scheerpeltz, 1933, p. 1263.—Blackwelder, 1939a, p. 102.

Medon obscurior (Cameron) Scheerpeltz, 1933, p. 1263.—Blackwelder, 1939a, p. 102.

Description.—Piceous, pronotum rufopiceous, elytra and abdomen rufotestaceous with disk in each case more or less infuscate. *Head* emarginate posteriorly but with angles not very prominent; eyes small, separated from base by nearly twice their length; gular sutures converging posteriorly and never very distant; not differing between the sexes; very irregularly but distinctly punctate with dense pubescence, posteriorly becoming somewhat tuberculate, more dense, and with some ground sculpture. *Pronotum* with distinct smooth midline, somewhat elevated; with dense but discrete tuberculi bearing dense pubescence, and mixed with ground sculpture at sides posteriorly. *Elytra* tuberculate as pronotum but a little more coarsely, without distinct group sculpture. *Abdomen* very finely and densely punctulate and pubescent. *Male*, seventh sternite with two feeble rounded emarginations separated by a large triangular lobe, each emargination interrupted by a protruding angulate process, the median lobe fimbriate posteriorly; eighth sternite deeply triangularly emarginate. *Female*, sternites unmodified. Length, 6 to 7 mm.

Type locality.—St. Vincent, Leeward side. Of *obscurior*, Grenada, Chantilly Estate, Windward side.

Types.—In the British Museum (for both names).

Records.—The following are the records known to me:

St. Vincent: (Cameron, 1913; Cameron collection; United States National Museum).

Grenada: (Cameron, 1913, as *obscurior;* Cameron collection).

Specimens examined.—I have seen 19 examples (including the two types) in the British Museum, 11 in the collection of Dr. Cameron, and 6 (including one cotype) in the United States National Museum. The last were received from the original series by exchange.

Remarks.—I was unable to distinguish the types of *obscurior* and *conifer* and believe them to be the same. The male characters are much more complex than in any other of our species.

I am unable to verify the statement made by Dr. Cameron that the triangular lobe of the seventh abdominal sternite of the male is emarginate at the apex. The surface of the lobe is slightly concave throughout but the apical margin is not distinctly emarginate.

I find no record of its habits.

4. ADEROCHARIS SUTURALIS, new species

Description.—Piceous to rufous, pronotum, elytra, and abdomen a little more rufous, elytra with margin generally rufescent or rufotestaceous. *Head* feebly emarginate at base, angles prominent; eyes small, at about one-half more than their length from base; gular sutures different in the sexes; not normally punctured but with moderately dense tuberculi with a minute puncture and fine hair at top of each; with irregular ground sculpture on base only. *Pronotum* with distinct but indefinitely smooth midline; with tuberculi as on head but stronger; without ground sculpture. *Elytra* with tuberculi as on pronotum but with pubescence more evident; without ground sculpture. *Abdomen* very minutely and very densely punctulate and pubescent. *Male*, gular sutures united throughout from small triangular submentum; seventh abdominal sternite with four small triangular processes separated by three rounded emarginations, the middle one a little wider than deep, the outer pair as deep as wide; eighth sternite very broadly, shallowly, and evenly emarginate. *Female*, gular sutures not united, moderately converging from submentum to base; abdominal sternites not modified. Length, 5 to 6½ mm.

Type locality.—Puerto Rico, 2 miles north-northwest of Villalba.

Types.—Holotype, male, and 14 paratypes, 5 males and 9 females, U.S.N.M. No. 52400, collected in 1935–37 by Chapin and Blackwelder. The paratypes are from Villalba and the localities mentioned below. Also three paratypes in the Museum of Comparative Zoology, from Cuba, Jamaica, and Haiti.

Records.—The following are the records known to me:

Cuba: Soledad (Darlington, in M.C.Z.).
Jamaica: (Wight, in M.C.Z.), May Pen (Blackwelder station 425C), Milk River (Blackwelder station 415), Santa Cruz (Blackwelder station 421), Newport (Blackwelder station 412A).
Hispaniola: HAITI, Dessalines (Darlington, in M.C.Z.).
Puerto Rico: Villalba (Blackwelder station 62), Adjuntas (Blackwelder station 49), Ensenada (Dozier, in U.S.N.M.).

Specimens examined.—I have seen only the 18 types.

Remarks.—This species is very distinct by the male characters as well as by the sculpture of the head.

My specimens were collected from horse manure and flying at dusk.

XXXIV. Genus STILOMEDON Sharp

Stilomedon SHARP, 1886, p. 565.
Subgenus *Polymedon* CASEY, 1905, pp. 151, 155.

Genotype.—*Lithocharis connexa* Sharp=*Stilomedon connexum* (Sharp) (designated by Blackwelder, 1939). Of *Polymedon*, *Lithocharis tabacina* Casey=*Polymedon tabacinum* (Casey) (original designation and monobasic).

Diagnosis.—Body elongate, moderately convex; punctures of head densely umbilicate, with or without ground sculpture; antennae posteriorly flexile, not strongly geniculate, basal segment not much elongate, first two not much larger than rest; labrum with median tooth and one or two pairs of denticles; fourth segment of maxillary palpus very small, subulate; gular sutures not at all united but narrowly separated, feebly diverging in front; punctures of pronotum normal, not umbilicate or tuberculate, without dense ground sculpture; prosternum not strongly carinate, prolonged between coxae as far as mesosternum but not much dilated under coxae; hypomera prolonged in a short lobe partially behind the coxae; anterior coxal cavities open behind, confluent; front coxae very large, exserted; middle coxal cavities confluent; posterior coxae contiguous, "conical"; first and second abdominal sternites absent, third carinate at base; seventh sternite not modified in either sex, eighth feebly emarginate in male only.

Remarks.—The comparison of the genotypes of *Stilomedon* and *Polymedon* shows them to be very similar in structure though differing moderately in facies, principally in the shape of the pronotum.

I have seen from the West Indies 113 specimens representing three species.

KEY TO WEST INDIAN SPECIES OF STILOMEDON

1. Head without ground sculpture; umbilicate punctures crowded___________ 2
Head in part with ground sculpture; umbilicate punctures not crowded. 1. insularum
2. Pronotum densely rugosely punctate___________________________ 3. audanti
Pronotum rather sparsely discretely punctate________________ 2. connexum

1. STILOMEDON INSULARUM (Cameron)

Medon (Neomedon) insularum Cameron, 1923, p. 399.—Scheerpeltz, 1933, p. 1250.—Blackwelder, 1939a, p. 103. (Not *insulare* Casey, 1905.)
Stilomedon insularum (Cameron) Blackwelder, 1939a, p. 103.

Description.—Piceous to rufous, pronotum generally a little more rufescent with lighter spots at the anterior angles, elytra generally paler than pronotum, tip of abdomen paler. *Head* quite distinctly emarginate at center of base with a short vertical groove in base of vertex, eyes small, at about twice their length from base; posterior angles moderately rounded; labrum with median tooth large, very prominent above, additional denticles very small and close to median; gular sutures rather narrowly separated but converging posteriorly; surface with moderate umbilicate punctures, not very dense, intervals flat and with dense ground sculpture especially anteriorly. *Pronotum* with sides moderately converging posteriorly; not or feebly impressed on disk; midline feebly channeled posteriorly; with moderately fine punctures which appear to be obsoletely umbilicate; with fine indistinct ground sculpture. *Elytra* not distinctly punctate, rather densely set with posteriorly directed tuberculi which bear the fine but long pubescence; without ground sculpture except along suture. *Abdomen* very finely and densely asperately punctulate; pubescence rather long. *Male*, seventh sternite unmodified; eighth sternite with a very broad and very shallow emargination, but this bordered by long hairs directed to the sides. *Female*, sternites not modified. Length, 3¼ to 4 mm.

Type locality.—Jamaica.

Types.—Unique female type in the collection of Dr. Cameron.

Records.—The following are the records known to me:

Cuba: Santiago de las Vegas (Dimmock, in U.S.N.M.), Cayamas (Schwarz, in U.S.N.M.).

Jamaica: (Cameron, 1923), Trinityville (Blackwelder station 428).

Hispaniola: Haiti, Port-au-Prince (Audant and Ducasse, in U.S.N.M.); Dominican Republic, San Francisco Mountains (Busck, in U.S.N.M.), Mount Quita (Darlington, in M.C.Z.).

Specimens examined.—I have seen the type in Dr. Cameron's collection, six examples in the United States National Museum, two that were borrowed from the Service Technique (and later presented to the United States National Museum), one in the Museum of Comparative Zoology, and one collected by me in 1935–37.

Remarks.—This species is readily distinguished by its dense ground sculpture. Some variation has been observed in the impressions and channeling of the pronotum. It belongs in the subgenus *Stilomedon* s. str.

The examples from Cuba were taken "in ceiba" (silk cotton tree) and the one from Jamaica flying at dusk.

2. STILOMEDON CONNEXUM (Sharp)

Lithocharis connexa SHARP, 1876, p. 254; 1886, p. 566.—BLACKWELDER, 1939a, pp. 103, 122.

Lithocharis convexa SHARP, 1876, p. 262 (typographical error); 1886, p. 566.

Stilomedon connexa (Sharp) SHARP, 1886, pp. 566, 567.—BERNHAUER and SCHUBERT, 1912, p. 230.—LENG and MUTCHLER, 1914, p. 405.—BIERIG, 1933, p. 489.—BLACKWELDER, 1939a, pp. 103, 122.

Stilomedon convexa (Sharp) SHARP, 1886, p. 566.—BERNHAUER and SCHUBERT, 1912, p. 230.

Description.—Rufous, elytra and abdomen sometimes rufotestaceous. *Head* not emarginate behind, hind angles broadly rounded; eyes small, at nearly twice their length from base; labrum not decidedly emarginate, with median denticle not very distinct, additional pair rather widely separated, large at base but acute and rather long; gular sutures very close but feebly converging posteriorly; surface with dense umbilicate punctures, the intervals frequently united in rows, without ground sculpture. *Pronotum* with sides rather strongly converging posteriorly; with two feeble longitudinal impressions posteriorly on disk along middle; midline not distinctly channeled; punctures not umbilicate but moderately coarse, usually separated by less than their diameter; without ground sculpture except at posterior angles. *Elytra* with indistinct punctation, which is evidently the result of the flattening of small tuberculi with the punctule on top; without distinct ground sculpture. *Abdomen* rather densely and finely but asperately punctured; with rather long and dense pubescence. *Male*, seventh sternite unmodified, eighth with a very broad rounded emargination. *Female*, sternites unmodified. Length, 3¼ to 4 mm.

Type locality.—"Amazons" (=Amazon Valley, Brazil).

Types.—"Two males in the British Museum" (according to the original description, but a note in the collection of the British Museum says, "Type not found." I found no South American examples in that collection).

Records.—The following are the records known to me:

Cuba: (Leng and Mutchler, 1914; United States National Museum).

Jamaica: Trinityville (Blackwelder station 428), Milk River (Blackwelder station 415), Santa Cruz (Blackwelder station 421), Bath in St. Thomas (Blackwelder station 392H).

Hispaniola: HAITI, Miragoane (Darlington, in M.C.Z.).

Guadeloupe: (Leng and Mutchler, 1914).

Dominica: (Blackwelder stations 235A, 237, 251).
St. Lucia: (Blackwelder stations 221, 231).
St. Vincent: (British Museum).
Grenada: (Blackwelder station 132; British Museum).
Trinidad: Manzanilla (Blackwelder station 103A), Caura Valley (Weber, in M.C.Z.)
South America: BRAZIL (Sharp, 1876, 1886), VENEZUELA (Bernhauer and Schubert, 1912).
Central America: PANAMA (Sharp, 1886; United States National Museum), MEXICO (Bernhauer and Schubert, 1912).

Specimens examined.—Beside a considerable number of specimens from Panama, I have seen 12 examples from the West Indies in the British Museum, 5 in the United States National Museum, and 69 collected by Chapin and Blackwelder in 1935–37.

Remarks.—Even in a small series this species shows some variation in details of sculpture. Although I believe the West Indian examples to be the same as the Panama ones (four of which were received from the Biologia material), I do not have males from Panama to compare with males from the islands. The above description was drawn from a St. Lucia example. This species belongs in the subgenus *Stilomedon* s. str.

We have collected it in rotting cocoa pods, flying at dusk, and flying to light at night.

3. STILOMEDON AUDANTI, new species

Description.—Rufous, elytra generally rufotestaceous. *Head* feebly emarginate behind, posterior angles very broadly rounded; eyes small, at about twice their length from base; labrum with median tooth rather small, lateral teeth rather widely separated, moderately large but stout; gular sutures narrowly separately but converging posteriorly; surface with rather large and dense umbilicate punctures, the intervals not much united in rows, flat, sometimes half as wide as punctures; without ground sculpture on disk. *Pronotum* with sides moderately converging posteriorly; scarcely impressed on disk; midline feebly channeled posteriorly; punctures normal, moderately coarse, dense, more or less confluent, intervals somewhat rugose and somewhat obscured by indefinite coarse ground sculpture. *Elytra* not punctured; with rounded tuberculi frequently separated by more than their diameter, and in part obscured by coarse ground sculpture; with three indistinct rows of larger setigerous punctures longitudinally on each elytron. *Abdomen* very finely, densely, and indistinctly punctulate; pubescence moderately long. *Male*, seventh sternite unmodified; eighth very feebly triangularly emarginate. *Female*, sternites unmodified. Length, 3 to 4 mm.

Type locality.—Cuba, Cayamas, 15 miles west-northwest of Cienfuegos, Province of Santa Clara.

Types.—Holotype, male, and seven paratypes, U.S.N.M. No. 52406, collected by E. A. Schwarz on January 5 of 1902, 1903, or 1904.

Records.—The following are the records known to me:

Cuba: (U.S.N.M.), Cayamas (Schwarz, in U.S.N.M.), Baragua (Christenson, in U.S.N.M.), Soledad (Darlington, in M.C.Z. and U.S.N.M.).
Hispaniola: HAITI, Port-au-Prince (Audant, in U.S.N.M.).
Puerto Rico: (U.S.N.M.), Ponce (Dozier, in U.S.N.M.).
St. Croix: (Blackwelder stations 333, 341).

Specimens examined.—Beside the types I have examined four examples in the United States National Museum, two that were lent from the collection of the Service Technique in Haiti, two from the Museum of Comparative Zoology, and two collected by me in 1935–37.

Remarks.—This species is rather similar to *connexum* but differs in the punctation and sculpture of the head, pronotum, and elytra, in the emargination of the base of the head, and in the shape of the labral denticles. It belongs in the subgenus *Stilomedon* s. str.

The types were taken "on palmetto"; one other specimen from Cuba was found "in soil of sugarcane fields"; one specimen from Puerto Rico and one from Cuba were found in trash on banana boats at Philadelphia; my specimens were caught flying at dusk.

XXXV. Genus SUNIUS Stephens

Sunius STEPHENS, 1829, p. 287.
Subgenus *Hypomedon* MULSANT and REY, 1878, p. 122.
    Chloëcharis LYNCH, 1884, p. 257.
    Chlocochoris EICHELBAUM, 1909, p. 148 (misspelling).
    Cloecharis BIERIG, 1934f, p. 328 (misspelling).
    Hemimedon CASEY, 1905, pp. 152, 160.
    Lena CASEY, 1905, p. 189.
    Euastenus FIORI, 1915, p. 10.
Subgenus *Sunius* s. str.
    Oligopterus CASEY, 1886a, p. 12.
    Medonella CASEY, 1905, pp. 154, 180.
    Micromedon CASEY, 1905, pp. 153, 155.
    Xenocharis BIERIG, 1934f, p. 328.
Subgenus *Caloderma* CASEY, 1886a, p. 5.
Subgenus *Trachysectus* CASEY, 1886a, pp. 32, 38.

Genotypes.—*Paederus melanocephalus* Fabricius=*Sunius melanocephalus* (Fabricius) (designated by Westwood, 1838). Of *Chloecharis*, *C. rufula* Lynch (monobasic); of *Oligopterus*, *O. cuneicollis* Casey (monobasic); of *Micromedon*, *Medon seminigrum* Fairmaire= *Micromedon seminigrum* (Fairmaire) (monobasic); of *Medonella*, *M. minuta* Casey (monobasic and original designation); of *Euastenus*, *E. pallidus* Fiori (monobasic); of *Xenocharis*, *X. occipitalis* Bierig (monobasic and original designation); of *Hypomedon*, *Lithocharis* *debilicornis* Wollaston=*Hypomedon debilicornis* (Wollaston) (designated by Blackwelder, 1939a); of *Hemimedon*, *H. rufipes* Casey (designated by Blackwelder, 1939a); of *Lena*, *L. testacea* Casey (monobasic); of *Caloderma*, *C. rugosa* Casey (designated by Blackwelder, 1939); of *Trachysectus*, *Lathrobium confluentum* Say=*Trachysectus confluentus* (Say) (monobasic and original designation).

Diagnosis.—Body elongate, moderately convex; punctures of head umbilicate, with or without dense ground sculpture; antennae posteriorly flexile, not strongly geniculate, basal segment not much elongate, first two not much larger than the rest; labrum without median denticle, with or without a pair of denticles near middle; fourth segment of maxillary palpus very small, subulate; gular sutures not at all united, moderately distant, most approximate anteriorly; punctures of pronotum similar to head in general; prosternum not carinate on disk, prolonged between coxae as far as mesosternum but not much dilated under coxae; hypomera prolonged in a short lobe partially behind coxae; anterior coxal cavities open behind, confluent; front coxae very large, exserted; middle coxal cavities confluent; posterior coxae contiguous, "conical"; first and second abdominal sternites absent, third carinate at base, seventh and eighth not modified in either sex (unless males are unknown); anterior tarsi slender.

Remarks.—Although the distinguishing characters of this genus are not very pronounced, it seems desirable and justifiable to recognize the variations within the old genus *Medon* by forming several genera, each of which has groups of species that can with propriety be made subgenera.

The name *Hypomedon* was at first adopted for this genus. When it was found that the name *Sunius* of Stephens was the valid name of one of the subgenera (previously cited under the name *Oligopterus*), it became necessary to use the older name for the genus.

The subgenera *Hypomedon* and *Caloderma* are the only ones besides the typical subgenus which have been found in the West Indies. The subgenus *Sunius* s. str. differs from both of these in having the head and pronotum sparsely punctate and shining. The subgenus *Caloderma* differs from *Hypomedon* in having the umbilicate punctures dense and in the absence of ground sculpture. The species *Medonella minuta* was described by Casey as possessing four denticles on the labrum. I am unable to see more than two on either of the types and therefore place the name *Medonella* as a synonym of *Sunius* s. str.

A "cotype" of *Xenocharis occipitalis* Bierig in the United States National Museum leaves no doubt that the genus *Xenocharis* is a synonym of *Sunius* s. str. Before receipt of this specimen I had confused the species with *Medonella ferrugenea* (*Sunius ferrugineus*), which is somewhat similar in both structure and appearance. Sr. Bierig's figure of the two species shows them to be distinct but does not prevent the uniting of *Xenocharis* with *Sunius* s. str.

I have seen 240 examples of this genus from the West Indies. They are assigned to nine species, of which four appear to be new.

KEY TO WEST INDIAN SPECIES OF SUNIUS

1. Head and pronotum with very dense ground sculpture____________________ 2
Head and pronotum without dense ground sculpture, shining___________ 3
2. Elytra normally, moderately coarsely punctate; less than 3 mm. long. 8. debilicornis
Elytra impunctate, with rather dense rounded tuberculi; 4 mm. long. 9. terresi
3. Pronotum more or less distinctly punctate____________________________ 4
Pronotum finely tuberculate_____________________________________ 7. weberi
4. Eyes large, at less than twice their length from base___________________ 5
Eyes small, at more than twice their length from base__________________ 6
5. Pronotum with median smooth stripe not canaliculate_________ 6. curtulus
Pronotum without median smooth stripe, but finely canaliculate posteriorly. 5. oblitus
6. Punctures of head usually separated by less than their diameter__________ 7
Punctures of head usually separated by more than their diameter________ 8
7. Sides of pronotum distinctly converging behind; length about 4 mm. 4. darlingtoni
Sides of pronotum nearly parallel; length 2 to 2½ mm_________ 3. occipitalis
8. Head with moderate, somewhat umbilicate punctures; elytra not broader than long____ 1. oakleyi
Head with fine punctures; elytra broader than long_________ 2. ferrugineus

1. SUNIUS OAKLEYI, new species

Description.—Rufopiceous, basal two-thirds of elytra indefinitely testaceous, abdomen castaneous with apex testaceous. *Head* one-thirteenth wider than long; base emarginate only above the neck; eyes very small, separated from base by over three times their length; sides slightly arcuate, basal angles rounded; labrum with a small triangular emargination at middle but without trace of denticle; gular sutures moderately separated, rather feebly converging apically; with large but not very distinctly umbilicate punctures generally separated by their diameter or more, with a smooth midline; without ground sculpture. *Pronotum* one-twelfth wider than long, as wide as head; sides feebly converging posteriorly; with punctures similar to those of head but denser, middle stripe indefinite, very vaguely irregularly channeled posteriorly; without ground sculpture. *Elytra* one-eighth longer than wide, a trifle wider than pronotum; surface uneven, punctures scarcely evident; without ground sculpture. *Abdomen* finely but sparsely tuberculately punctate. *Male*, apex of seventh sternite truncate or very vaguely emarginate; eighth with a broad rounded emargination less than one-third as deep as wide. *Female*, unknown. Length, 2½ mm.

Type locality.—Puerto Rico, 4 miles southeast of Adjuntas, elevation about 3,000 feet.

Types.—Holotype, male, U.S.N.M. No. 52402, collected by me on October 4, 1935; two paratypes from the Museum of Comparative Zoology, from El Yunque and Maricao.

Records.—The following are the records known to me:

Puerto Rico: Adjuntas (Blackwelder station 48A), Maricao Forest (Darlington, in M.C.Z.), El Yunque (Darlington, in U.S.N.M.).

Specimens examined.—I have seen only the three types.

Remarks.—This species is named for R. G. Oakley, who was of great assistance to me in the collecting of this and numerous other species.

This species is quite distinct from *ferrugineus*, but except for the denticles on the labrum it seems to be a normal *Sunius* s. str.

The type was found in a very rotten stump.

2. SUNIUS FERRUGINEUS (Bierig)

Medonella ferruginea Bierig, 1934f, pp. 326, 329, fig. 3.

Description.—Ferrugineous. *Head* quadrangular, one-fourth longer than wide (from the figure, about as wide as long), basal angles rather broadly rounded, base not truncate; eyes separated from base by more than twice their length; with fine punctures separated by less than their diameter except on the vertex; without dense ground sculpture. *Pronotum* as wide in front as head, as broad as long, sides feebly converging behind and rounded into base; punctures homogeneous, more variable in size, lacking in narrow irregular midline; without dense ground sculpture. *Elytra* reduced, one-seventh wider than long; much more coarsely and simply punctate, the intervals elevated and very finely irregularly coriaceous. *Abdomen* with very uneven granulose sculpture. *Male*, eighth sternite with a large triangular incision. Length, 2¼ mm. (From Bierig.)

Type locality.—Cuba, Playa de Marianao.

Types.—In the collection of Alexander Bierig.

Records.—The following is the only record known to me:

Cuba: Playa de Marianao (Bierig, 1934).

Specimens examined.—I have seen no examples of this species.

Remarks.—The characters given in the original description appear to be sufficient to place this species in the key, although its reference to this genus is perhaps doubtful. It appears to belong to the subgenus *Sunius* s. str.

Bierig records this species from sand under dry seaweed.

3. SUNIUS OCCIPITALIS (Bierig)

Xenocharis occipitalis BIERIG, 1934f, p. 329, figs. 1, 4.—BLACKWELDER, 1939a, p. 122.

Description.—Rufotestaceous throughout. *Head* as long as broad, base rather strongly emarginate, triangular above the neck; eyes very small, separated from base by more than three times their length; sides slightly arcuate, basal angles narrowly rounded; labrum with two distinct denticles near the center; gular sutures moderately separate but very feebly converging apically; surface with rather small umbilicate punctures, separated by their diameter or less, absent along middle; without ground sculpture. *Pronotum* as long as broad, scarcely narrower than head; sides feebly converging posteriorly; with punctures similar to those on head but sparser, generally separated by more than half their diameter and frequently more than their diameter; middle stripe smooth, slightly elevated posteriorly; without ground sculpture. *Elytra* barely longer than wide, as wide as pronotum; punctured as pronotum but less distinctly umbilicately; somewhat coriaceous but without ground sculpture. *Abdomen* very minutely but not very densely asperately punctate. *Male*, seventh sternite flattened at middle and becoming feebly concave posteriorly, produced posteriorly in center half, the lobe with a rounded emargination about half as deep as wide, eighth sternite with an emargination of breadth equal to that of seventh but as deep as wide, set off by a minute inwardly directed tubercle at the inner edge of the posterior angles. *Female*, sternites not modified. Length, 2 mm.

Type locality.—Cuba.

Types.—In the collection of Alexander Bierig. (One "cotype" is in the United States National Museum (No. 52729) through the generosity of Sr. Bierig.)

Records.—The following are the records known to me:

Cuba: San Vicente, Sierra de los Organos (Bierig, 1934), Rangel, Sierra del Rosario (Bierig, 1934; Bierig, in U.S.N.M.), Aspiro (Bierig, 1934), Bejucol (Bierig, 1934), Cruz de Piedra, province of Habana (Bierig, 1934), Cayamas (Schwarz, in U.S.N.M.).

Specimens examined.—I have seen one male and one badly broken female in the United States National Museum, in addition to the "cotype."

Remarks.—I am unable to separate the Cayamas specimens from the "cotype" of *occipitalis*. The description has been taken from the Cayamas examples.

The punctation of the head and pronotum indicates that this species belongs in the subgenus *Sunius* s. str. It is very similar to *Medonella minuta* Casey (=*Sunius minuta*) from Florida from which it is distinguished by the very small eyes and long temples as well as by details of punctation.

The types were found under fallen leaves.

4. SUNIUS DARLINGTONI, new species

Description.—Piceous, elytra rufocastaneous or rufous. *Head* transverse, not emarginate behind, with angles moderately rounded; eyes very small, at over three times their length from base; labrum with a small median emargination bordered by a pair of small blunt tubercles, and with a still smaller pair more laterally; gular sutures very closely approximated near base; with dense and fine but distinctly umbilicate punctures generally separated by less than half their diameter; without distinct ground sculpture except in depression between eyes and also behind eyes laterally. *Pronotum* nearly as wide as head, about one-fourth wider than long, the sides rather strongly converging and rounded into base; disk with a trace of impression on either side of midline near base; punctation very similar to that of head but obsolescent; without a distinct smooth midline; without distinct ground sculpture. *Elytra* with rather indistinct submuricate punctures separated by a little more than their diameters; without definite ground sculpture. *Abdomen* sparsely minutely submuricately punctate, with indistinct ground sculpture. *Male*, eighth sternite with a very small semicircular emargination. *Female*, sternites not modified. Length, 4 to 4½ mm.

Type locality.—Dominican Republic, Loma Vieja, south of Constanza, elevation about 6,000 feet.

Types.—Holotype, male, and one paratype, female, in the Museum of Comparative Zoology, collected in August 1938 by Dr. P. J. Darlington; two paratypes in the United States National Museum (No. 52510). (All three paratypes collected at Loma Rucilla and the mountains to the north in June 1938.)

Records.—The following are the records known to me:

Hispaniola: Dominican Republic, Loma Vieja (Darlington, in M.C.Z.), Loma Rucilla (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the four types.

Remarks.—This species is distinguished by the obsolescent pronotal punctures, the small eyes, and the denticles of the labrum, in addition to the characters in the key. It is an unusually shiny species and probably belongs in the subgenus *Sunius* s. str.

I have received no record of its habits.

5. SUNIUS OBLITUS (Erichson)

Lithocharis oblita Erichson, 1840, p. 618.—Blackwelder, 1939a, p. 104.

Medon (*Lithocharis*) *oblita* (Erichson) Bernhauer and Schubert, 1912, p. 242.—Blackwelder, 1939a, p. 104.

Description.—Black or piceous, elytra rufotestaceous, abdomen castaneous or picescent. *Head* transverse, not emarginate behind, with angles moderately rounded; eyes large, at about their length from base; labrum with a small median emargination but entirely without denticles; gular sutures moderately close, most approximate along middle, diverging at both ends; with rather coarse umbilicate punctures, very uneven in size, separated generally by less than their width by flat intervals, a little more sparse at center of vertex; without distinct ground sculpture. *Pronotum* as wide as head, nearly one-fifth wider than long, sides feebly converging and evenly rounded into base; punctation very similar to that of head; without a smooth midline but finely channeled along it posteriorly; without ground sculpture. *Elytra* not distinctly punctate, surface very uneven and with sparse fine setigerous tubercles, very indistinct; without definite ground sculpture. *Abdomen* minutely punctate and pubescent, with indistinct ground sculpture. *Male*, seventh sternite unmodified, eighth with an abrupt rounded emargination. *Female*, sternites not modified. Length, 2¾ to 4 mm.

Types locality.—Colombia.

Types.—Either in the Hope Museum, Oxford, or Zoologische Museum, Berlin.

Records.—The following are the records known to me:

St. Lucia: (Blackwelder station 220D).
St. Vincent: (British Museum).
Grenada: (Cameron collection; British Museum; United States National Museum).
South America: COLOMBIA (Erichson, 1840; Bernhauer and Schubert, 1912).

Specimens examined.—I have seen 158 examples in the British Museum, 6 in the collection of Dr. Cameron, and 1 collected by me in April 1936. (These are all from the West Indies.)

Remarks.—This species also is known to me only from the West Indies but seems to be properly associated with the Erichson name. It is distinguished by its smooth shining integuments and channeled pronotum. It belongs in the subgenus *Sunius* s. str.

My specimen was found in rotting cocoa pods.

6. SUNIUS CURTULUS (Erichson)

Lithocharis curtula ERICHSON, 1840, p. 618.—LENG and MUTCHLER, 1914, p. 405.—BLACKWELDER, 1939a, p. 104.

Medon (*Lithocharis*) *curtulus* (Erichson) BERNHAUER and SCHUBERT, 1912, p. 241.—BLACKWELDER, 1939a, p. 104.

Description.—Head black to rufopiceous, pronotum rufopiceous to rufous, elytra rufopiceous to rufous with apex sometimes paler, abdomen castaneous. *Head* transverse, rather strongly emarginate behind but with angles broadly rounded; eyes large, at a trifle less than their length from base; labrum with a small triangular emargination at middle, entirely without teeth; gular sutures moderately close, most approximate along middle, diverging at both ends; with rather coarse umbilicate punctures, intervals flat, nearly absent on middle of vertex; without ground sculpture. *Pronotum* scarcely narrower than head, one-ninth wider than long, sides feebly converging posteriorly; less coarsely umbilicately punctured than head, with an impunctate median band in basal half but not channeled; without ground sculpture. *Elytra* not distinctly punctate, surface uneven and with sparse feeble setigerous tubercles; without ground sculpture. *Abdomen* exceedingly finely but not densely punctate, with fine long pubescence; with indistinct transverse ground sculpture. *Male*, seventh sternite not modified; eighth with a moderately deep rounded emargination. *Female*, sternites not modified. Length, 3 to 3½ mm.

Type locality.—Colombia.

Types.—Either in the Hope Museum, Oxford, or the Zoologische Museum, Berlin.

Records.—The following are the records known to me:

Grenada: (Cameron collection, British Museum; United States National Museum).

Trinidad: (Bernhauer and Schubert, 1912; Leng and Mutchler, 1914), Tacarigua (Blackwelder station 107C).

South America: VENEZUELA (Bernhauer and Schubert, 1912), COLOMBIA (Erichson, 1840; Bernhauer and Schubert, 1912).

Specimens examined.—I have seen 27 examples in the British Museum, 7 in the collection of Dr. Cameron, and 1 collected by me in December 1935. (All these are from the West Indies.)

Remarks.—Although I have seen no specimens from Colombia or Venezuela, I believe this identification to be correct. It is distinguished by the absence of ground sculpture and the absence of a median pronotal channel. It belongs in the subgenus *Sunius* s. str.

My specimen was taken from under moss and earth on a rock.

7. SUNIUS WEBERI, new species

Description.—Piceous, elytra piceocastaneous with apical sixth testaceous. *Head* a trifle broader than long (exclusive of the eyes), base distinctly emarginate only above the neck; eyes very large, separated from base by about half their length; sides rounded into base; labrum with a small median emargination but no denticles; gular sutures moderately separated, most approximate before middle, thence feebly diverging; with coarse, distinct, and crowded umbilicate punctures, the intervals convex and without sculpture. *Pronotum* about one-seventh wider than long, the sides moderately converging posteriorly and rounded into base; without any punctures or distinct ground sculpture but with fine rounded tuberculi separated by one to two times their diameter; middle stripe irregular but smooth, not elevated. *Elytra* about as long as wide, about one-eighth wider than pronotum; surface very uneven, without distinct punctures but with somewhat indistinct tuberculi as on pronotum; without distinct ground sculpture. *Abdomen* with minute punctures obscured by irregular sculpture. *Male*, unknown. *Female*, sternites not modified. Length, 3 mm.

Type locality.—Trinidad, 11 miles north of Arima, elevation 1,800 feet.

Types.—Holotype, female, in the Museum of Comparative Zoology, collected on March 28, 1935, by N. A. Weber.

Records.—The following is the only record known to me:

Trinidad: Arima (Weber, in M.C.Z.).

Specimens examined.—I have seen only the unique type.

Remarks.—This species is unique in the coloring of the elytra but is immediately distinguished from all other West Indian species by possessing tuberculi on the pronotum and elytra instead of umbilicate punctures. It belongs in the subgenus *Caloderma*, of which it is our only respesentative.

I have received no record of its habits.

8. SUNIUS DEBILICORNIS (Wollaston)

Lithocharis debilicornis WOLLASTON, 1857, p. 194.
Lithocharis brevicornis ALLARD, 1857, p. 747, pl. 14, fig. 2.
Lithocharis aegyptiaca MOTSCHULSKY, 1858a, p. 644.
Lithocharis pallida MOTSCHULSKY, 1858a, p. 644.
Lithocharis occulta WATERHOUSE, 1876, p. 108.
Medon (*Hypomedon*) *debilicornis* (Wollaston) MULSANT and REY, 1878, p. 164.
Chloecharis rufula LYNCH, 1884, p. 259.
Medon debilicornis (Wollaston) FAUVEL, 1888, p. 25.
Medon brevicornis (Allard) GANGLBAUER, 1895, p. 523.
Medon aegyptiacus (Motschulsky) GANGLBAUER, 1895, p. 523.
Medon (*Chloecharis*) *debilicornis* (Wollaston) DEVILLE, 1907, pp. 145, 148.
Medon (*Hypomedon*) *occultus* (Waterhouse) BERNHAUER and SCHUBERT, 1912, p. 238.
Medon (*Hypomedon*) *aegyptiacus* (Motschulsky) BERNHAUER and SCHUBERT, 1912, p. 238.
Medon (*Hypomedon*) *brevicornis* (Allard) BERNHAUER and SCHUBERT, 1912, p. 238.
Medon (*Hypomedon*) *rufulus* (Lynch) BERNHAUER and SCHUBERT, 1912, p. 238.
Chloecharis debilicornis (Wollaston) BERNHAUER and SCHUBERT, 1912, p. 238.
Medon (*Lithocharis*) *pallida* (Motschulsky) BERNHAUER and SCHUBERT, 1912, p. 243.
Hypomedon debilicornis (Wollaston) LENG and MUTCHLER, 1914, p. 405.
Euastenus pallidus FIORI, 1915, p. 10.
Lithocharis rufulus (Lynch) CAMERON, 1931, p. 154.
Medon (*Hypomedon*) *pallidus* (Fiori) SCHEERPELTZ, 1933, p. 1257. (Not Motschulsky, 1858.)
Medon pallidum (Motschulsky) CAMERON, 1934, p. 79.

Description.—Rufotestaceous or fuscotestaceous, elytra testaceous. *Head* scarcely wider than long, feebly emarginate at middle of base, sides arcuate but angles not completely rounded; eyes small, at nearly twice their length from base; labrum with a small emargination at middle, but without denticles; gular sutures moderately close in front, widely separated posteriorly; with moderate umbilicate punctures, separated by their diameter or less and obscured by dense ground sculpture. *Pronotum* scarcely wider than long, almost as wide as head; sides moderately convergent posteriorly, angles rounded; surface not impressed; midline impunctate but sculptured; with punctation and sculpture as on head. *Elytra* normally, moderately coarsely punctured, without ground sculpture. *Abdomen* with fine asperate punctures, not dense; with distinct ground sculpture. *Male*, seventh and eighth sternites not modified. *Female*, not externally distinguishable from male. Length, 1¾ to 2¼ mm.

Type locality.—Madeira, near Funchal. Of *aegyptiacus*, Egypt; of *rufulus*, Argentina, Chacabuco, Buenos Aires Province; of *occultus*, Rodriguez Island, Indian Ocean; of *pallidus* Fiori, "Italia meridionale," "nord di Cotrone (prov. di Catanzaro)"; of *brevicornis*, France, "aux environs de Rozoy-en-Brie"; of *pallidus* Motschulsky, "Indes orientales."

Types.—Unique type in the British Museum. Of *aegyptiacus*, presumably in the Zoologische Universität Museum, Moscow; of *rufulus*, in the Museo Argentino Ciencias Naturales, Bernar Rivadavia, Buenos Aires; of *occultus*, in the British Museum; of *pallidus* Fiori, presumably in collection of A. Fiori; of *brevicornis*, disposition unknown; of *pallidus* Motschulsky, with *aegyptiacus*.

Records.—The following are the records known to me:

Cuba: (U.S.N.M.), Cayamas (Schwarz, in U.S.N.M.), Soledad (Darlington, in M.C.Z.).

Jamaica: Milk River (Blackwelder station 415), Santa Cruz (Blackwelder station 421), Trinityville (Blackwelder station 428).

St. Croix: (Blackwelder station 341).

Antigua: (H. E. Box, as Blackwelder station 444C).

Guadeloupe: (Fauvel, 1888; Leng and Mutchler, 1914).

St. Lucia: (H. E. Box, as Blackwelder station 444B).

St. Vincent: (Cameron collection).

Grenada: (British Museum; Cameron collection).

Trinidad: St. Augustine (British Museum).

South America: (Gridelli, 1930), ARGENTINA (Lynch, 1884, as *rufulus*).

Central America: MEXICO (Gridelli, 1930).

North America: SOUTH CAROLINA (Fauvel, 1878, 1888), TEXAS (Gridelli, 1930), TEXAS, FLORIDA (Casey collection, United States National Museum, as *testacea*).

Europe: FRANCE (Fauvel, 1872, 1878, 1888; Allard, 1857; Mulsant and Rey, 1877; Portevin, 1929; Deville, 1907), CORSICA, ITALY, SICILY (Fiori, 1915; Deville, 1926).

Africa: (Gridelli, 1930), MADEIRA (Wollaston, 1857; Fauvel, 1872, 1877, 1888), CAPE VERDES (Fauvel, 1872, 1878, 1888; Ganglbauer, 1895), EGYPT (Fauvel, 1872, 1878, 1888; Ganglbauer, 1895), TUNIS, RODRIGUEZ ISLAND, CANARIES, ST. HELENA, ALGERIA, AZORES (Waterhouse, 1876, 1879).

Asia and Orient: PERSIA (Fauvel, 1878, 1888; Ganglbauer, 1895), SIAM, SINGAPORE, INDIA (Fauvel, 1872, 1888; Ganglbauer, 1895; Cameron, 1921, 1931), JAPAN (Fauvel, 1878, 1888; Ganglbauer, 1895).

Australia: (Fauvel, 1878, 1888).

Oceania: NEW CALEDONIA (Fauvel, 1888), HAWAII (Sharp, 1908; Gridelli, 1930).

Specimens examined.—I have seen from the West Indies, beside many from the Atlantic islands and the Indo-Oriental region and North America, 7 examples in the British Museum, 3 in Dr. Cameron's collection, 2 in the Museum of Comparative Zoology, 4 in the United States National Museum, and 12 collected by me in 1935-37.

Remarks.—The lengthy synonymy is due to failure to recognize that this is virtually a cosmopolitan species. Although so widespread, I know of no instance in which more than a few specimens have been taken at one time.

It is the type of the subgenus *Hypomedon*.

My specimens were taken in trash heaps in sugarcane fields and flying at dusk.

9. SUNIUS TERRESI, new species

Description.—Rufous, abdomen picescent. *Head* one-sixth wider than long, rather indefinitely emarginate behind, with angles moderately rounded; eyes large, at a little more than their length from base; labrum with two broad rounded lobes separated by a small emargination, without denticles; gular sutures moderately close, most approximate along middle, diverging at both ends; with moderately dense and small umbilicate punctures, not much sparser on disk, somewhat obscured by dense ground sculpture. *Pronotum* one-sixth wider than long, as wide as head exclusive of eyes; sides feebly converging and evenly rounded into base; without midline or channels, but with a trace of midline formed of linearly arranged intervals; punctures similar to those of head but almost completely obscured by the dense strong ground sculpture. *Elytra* with rather dense rounded tuberculi, impunctate and without ground sculpture. *Abdomen* minutely and densely punctate and pubescent. *Male*, unknown. *Female*, sternites not modified. Length, 4 mm.

Type locality.—Haiti, Diquini, on coastal plain between Port-au-Prince and Leogane.

Types.—Holotype, female, U.S.N.M. No. 52405, collected by J. B. Terres.

Records.—The following is the only record known to me:

Hispaniola: HAITI, Diquini (Terres, in United States National Museum).

Specimens examined.—I have seen only the unique type.

Remarks.—This species is distinguished by its dense ground sculpture and rather dense umbilicate punctures of head and pronotum and strongly tuberculate sculpture of elytra. It belongs in the subgenus *Hypomedon.* I have no record of its habits.

XXXVI. Genus MEDON Stephens

Medon STEPHENS, 1832, p. 273.
Oxymedon CASEY, 1905, p. 177.
Subgenus *Platymedon* CASEY, 1889a, p. 184.
Paramedon CASEY, 1905, p. 166.
Subgenus *Medonodonta* CASEY, 1905, p. 176.
Subgenus *Tetramedon* CASEY, 1905, p. 178.

Genotype.—*Medon ruddii* Stephens (monobasic). Of *Oxymedon*, *O. rubrum* Casey (monobasic); of *Medonodonta*, *M. alutacea* Casey (monobasic); of *Paramedon*, *P. arizonicum* Casey (designated by Blackwelder, 1939); of *Platymedon*, *P. laticollis* Casey (monobasic); of *Tetramedon*, *T. rufipenne* Casey (monobasic).

Diagnosis.—Body elongate, moderately convex; punctures of head umbilicate; antennae posteriorly flexible, not strongly geniculate, basal segment not much elongate, first two not much larger than rest; labrum without median denticle, with one or two pairs of denticles near middle; fourth segment of maxillary palpus very small, subulate; gular sutures not at all united, never very distant but most approximate along middle or posteriorly; punctures of pronotum more or less tuberculate; prosternum longitudinally carinate along disk, prolonged posteriorly between coxae but not much dilated beneath them; hypomera prolonged in a short lobe partially behind the coxae; anterior coxal cavities open behind, confluent; front coxae very large, exserted; middle coxal cavities confluent; posterior coxae contiguous, "conical"; first and second abdominal sternites absent, third carinate at base, seventh unmodified in both sexes, eighth sternite not or feebly modified in male only.

Remarks.—This name is used here in a restricted sense probably about equivalent to the subgenus *Medon* of Bernhauer and Schubert. It is not very abruptly distinguished from its close neighbors, but in this status permits a more careful grouping of its species.

I have seen 89 examples of this genus, belonging to seven new species.

KEY TO WEST INDIAN SPECIES OF MEDON

1. Head with dense ground sculpture 2
   Head without dense ground sculpture 3
2. Head distinctly longer than broad .... 7. cordatum
   Head distinctly broader than long .... 6. schwarzi
3. Midline of pronotum elevated, narrowly impunctate 4
   Midline of pronotum not elevated 5

4. Head with many larger umbilicate punctures scattered among dense small ones ---------- 2. matasana
   Head without larger umbilicate punctures ---------- 1. johni
5. Pronotum distinctly punctate; midline not deeply canaliculate ---------- 6
   Pronotum not distinctly punctate; midline deeply canaliculate -- 5. cubanum
6. Pronotum punctured as head, not *very* densely ---------- 4. trinitatum
   Pronotum very densely punctate, more densely than head --- 3. dominicanum

1. MEDON JOHNI, new species

Description.—Piceous, pronotum generally rufescent, elytra and base of abdomen castaneous, apex of abdomen testaceous. *Head* one-ninth wider than long, base not emarginate, sides rounded into base from eyes; eyes large, at a little less than their length from base; labrum with two distinct denticles near middle in a rather wide emargination; gular sutures moderately separated in front, becoming very close posteriorly; with dense but not large umbilicate punctures, separated by narrow convex intervals; without distinct ground sculpture. *Pronotum* as long as wide, one-tenth narrower than head; sides feebly converging posteriorly and rounded into base; disk impressed on either side along midline posteriorly; midline narrowly smooth and shining; with dense but feebly developed tuberculi, each bearing a minute punctule and hair at top, separated by less than their diameter by smooth shining intervals. *Elytra* with moderate punctures obscured by submuricate or tuberculate rugosities; with long pubescence. *Abdomen* densely and finely punctate, more sparsely apically. *Male*, seventh and eighth sternites not modified. *Female*, externally indistinguishable from male. Length, 4 mm.

Type locality.—St. Lucia, one-half mile northwest of Duboulay Estate on road to Soufrière, district of St. Remy.

Types.—Holotype and 32 paratypes, U.S.N.M. No. 52408, collected by me in April and May 1936; two paratypes from Dominica. Two paratypes have been deposited in the British Museum, two in Dr. Cameron's collection, and two in my own collection.

Records.—The following are the records known to me:

Dominica: (Blackwelder station 237).
St. Lucia: (Blackwelder station 207B, 220D, 221, 224, 226, 227, 230, 231).

Specimens examined.—I have seen only the 40 types.

Remarks.—I find considerable variation in the labrum of this species. In several there are two hairs arising between the denticles which seem to mark two minute additional denticles; in some the edges of the emargination are angular and almost denticlelike; and in some the two teeth are so reduced as to be rather indistinct. This species belongs in the subgenus *Medon* s. str.

I have collected this species from cut banana stalks and from rotting cocoa pods.

2. MEDON MATASANA, new species

Description.—Piceocastaneous, humeri and sides of abdomen somewhat paler. *Head* exclusive of eyes about one-sixth wider than long, base slightly emarginate over the neck, sides very feebly converging behind, the angles narrowly rounded; eyes large, at about their length from base; labrum with a small but abrupt emargination deeper than wide, without denticles; gular sutures fairly close and nearly parallel from near the front; with dense but rather small umbilicate punctures interspersed with larger ones; the intervals flat and without distinct ground sculpture. *Pronotum* about one-sixth wider than long, about one-tenth narrower than head; sides moderately converging and rounded into base; disk feebly impressed along midline posteriorly; midline narrowly and indefinitely smooth and shining, vaguely canaliculate posteriorly; with very dense and irregular umbilicate punctures, the intervals not wide enough to be flattened; without distinct ground sculpture. *Elytra* with rather dense submuricate punctures obscured by surface rugosity; with rather long pubescence. *Abdomen* finely and moderately densely punctate; with indistinct ground sculpture. *Male*, eighth sternite with a large triangular emargination, twice as broad as deep, with all angles rounded. *Female*, sternites unmodified. Length, 4 to 4½ mm.

Type locality.—Dominican Republic, San José de las Matas, elevation 1,000 to 2,000 feet.

Types.—Holotype and seven paratypes in the Museum of Comparative Zoology; five paratypes in the United States National Museum (No. 52511); collected in June 1938 by Dr. P. J. Darlington.

Records.—The following are the records known to me:

Hispaniola: DOMINICAN REPUBLIC, San José de las Matas (Darlington, in M.C.Z. and U.S.N.M.), Mount Quita-Espuela (Darlington, in M.C.Z. and U.S.N.M.), Santiago de los Caballeros (Darlington, in M.C.Z.), Villa Altagracia (Darlington, in M.C.Z.), Sánchez (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the 13 types.

Remarks.—This species is distinct by its labral emargination, the punctation of the pronotum and elytra, and the male characters. It is larger than any of our species except *dominicanum*. It apparently belongs in the subgenus *Medon* s. str.

I have received no record of its habits.

3. MEDON DOMINICANUM, new species

Description.—Head black, pronotum piceous, elytra and abdomen castaneous with humeral areas of elytra indefinitely paler. *Head* about one-seventh wider than long, base somewhat emarginate especially above the neck, sides parallel but moderately rounded into base; eyes large, at a little more than their length from base; labrum with a small and abrupt emargination, deeper than wide, the apex rectangular, without denticles; gular sutures narrowly separated, feebly converging posteriorly; with fine and dense but very distinct umbilicate punctures interspersed with a few much larger ones, the intervals narrow but flat and with ground sculpture at sides basally. *Pronotum* about one-sixth wider than long, only a trifle narrower than head; sides rather strongly converging and rounded into base; disk not impressed along midline; midline not smooth or canaliculate; with dense umbilicate punctures of two sizes as on head; without distinct ground sculpture. *Elytra* with rather dense submuricate punctures obscured by coarse rugosity of the surface; with long pubescence. *Abdomen* very finely and densely punctulate, with indistinct ground sculpture. *Male*, sixth sternite with anterior plica extended at middle to make a narrow elevated median ridge which projects as a blunt process at posterior margin; seventh sternite transversely impressed and broadly emarginate; eighth with a large excision, deeper than wide, wider just inside the apical angles. *Female*, sternites unmodified. Length, 5 to 6 mm.

Type locality.—Dominican Republic, Sánchez.

Types.—Holotype, male, and five paratypes in the Museum of Comparative Zoology; five paratypes in the United States National Museum (No. 52512), collected in July 1938 by Dr. P. J. Darlington.

Records.—The following are the records known to me:

Hispaniola: HAITI, Étang Lachaux (Darlington, in M.C.Z. and U.S.N.M.); DOMINICAN REPUBLIC, Sánchez (Darlington in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the 11 types.

Remarks.—This is the largest *Medon* known to me. It is very distinct by the male characters, in which it differs greatly from *M. matasana*, which is its closest neighbor geographically as well as zoologically. It probably belongs in the subgenus *Medon* s. str.

I have received no record of its habits.

4. MEDON TRINITATUM, new species

Description.—Piceous, elytra and abdomen piceocastaneous, elytron with a triangular pale spot at outer apical corner extending to suture and to middle of side. *Head* one-fifth wider than long, base emarginate only above the neck, sides parallel and rather narrowly rounded into base; eyes large, at about their length from base; labrum with a small abrupt emargination, scarcely as deep as wide, without denticles; gular sutures obsolescent, feebly divergent from near front; with moderately coarse umbilicate punctures separated by one-half to once their diameter; without ground sculpture. *Pronotum* one-eighth wider than long, as wide as head; sides moderately converging behind and rounded into base; disk not impressed along midline; with only a trace of smooth midline; with punctures as on head but sometimes a little denser; without ground sculpture. *Elytra* with punctures irregular, feebly submuricate, surface very uneven though not actually rugulose; with long pubescence. *Abdomen* with minute and rather indistinct punctures and rather vague ground sculpture. *Male*, eighth sternite with a broad shallow emargination. *Female*, sternites not modified. Length, 3 to 3¾ mm.

Type locality.—Trinidad, Tunapuna.

Types.—Holotype, male, and seven paratypes in the Museum of Comparative Zoology; four paratypes in the United States National Museum (No. 52513); collected in June to September 1935 by N. A. Weber. (Paratypes partly from the localities listed below.)

Records.—The following are the records known to me:

Trinidad: Tunapuna (Weber, in M.C.Z. and U.S.N.M.), St. Augustine (Weber, in M.C.Z. and U.S.N.M.), Nariva Swamp (Weber, in M.C.Z.), Galeota Point (Weber, in M.C.Z.), Macqueripe Bay (Weber, in M.C.Z.), Balandra Bay (M.C.Z.).

Specimens examined.—I have seen only the 12 types.

Remarks.—This species is distinct from the other West Indian species by the color pattern of the elytra. It probably belongs in the subgenus *Medon* s. str.

I have received no record of its habits.

5. MEDON CUBANUM, new species

Description.—Rufous, elytra faintly picescent. *Head* a trifle broader than long, the base not at all emarginate, the sides slightly expanded behind the eyes and moderately rounded into base; eyes small, at almost three times their length from base; labrum with a small median emargination about as wide as deep, without denticles; gular sutures rather close, diverging at both ends; with rather small but dense and distinctly umbilicate punctures usually separated by half or less of their diameter; without ground sculpture. *Pronotum* as wide as long, a trifle narrower than head; sides moderately converging and rounded into base; rather coarsely canaliculate along midline throughout; with some depression along midline posteriorly; setigerous punctures apparently umbilicate but almost completely obsolete, not dense; without ground sculpture. *Elytra* with moderately fine and dense punctures obsolescent, separated indefinitely by less than their diameter; with long pubescence. *Abdomen* with strongly umbilicate punctures fairly dense, without distinct ground sculpture. *Male*, eighth sternite with an abrupt rounded emargination from one-half deeper than wide to about as wide as deep. *Female*, unknown. Length, 3½ mm.

Type locality.—Cuba, Loma del Gato, Cobre Range, Oriente Province, elevation about 3,000 feet.

Types.—Holotype and one paratype, males, in the Museum of Comparative Zoology; one paratype, male, in the United States National Museum (No. 52514); collected on July 3–7, 1936, by Dr. P. J. Darlington.

Records.—The following are the records known to me:

Cuba: Loma del Gato (Darlington, in M.C.Z. and U.S.N.M.), Pico Turquino (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the three types.

Remarks.—This species is distinguished by its small eyes, by the obsolete punctuation of the pronotum, and by the male characters. It is also unique in the enlargement of the head behind the eyes. It probably belongs in the subgenus *Medon* s. str.

I have received no record of its habits.

6. MEDON SCHWARZI, new species

Scioporus caribaeus Bierig, MS.

Description.—Rufotestaceous. *Head* one-seventh wider than long, rather indefinitely emarginate behind, with angles moderately rounded; eyes small, at about twice their length from base; labrum with a small median emargination and a pair of more feeble emarginations between this and the sides, without denticles; gular sutures moderately close, most approximate along middle, diverging at both ends; with very sparse umbilicate punctures separated by one to three times their diameter, with dense scaly ground sculpture. *Pronotum* almost as wide as head, as long as wide; sides feebly converging and evenly rounded into base; with an impunctate but sculptured median area, not channelled; with punctures and sculpture as on head. *Elytra* not distinctly punctate, surface uneven and with indistinct setigerous tubercles moderately dense; without ground sculpture. *Abdomen* very minutely punctured and pubescent; ground sculpture indistinct. *Male*, eighth sternite with a small rounded emargination about three times as wide as long. *Female*, sternites not modified. Length, 4½ mm.

Type locality.—Cuba, Cayamas, 15 miles west-northwest of Cienfuegos, province of Santa Clara.

Types.—Holotype, female, U.S.N.M. No. 52404, collected by E. A. Schwarz on February 26 of 1902, 1903, or 1904; one paratype in the United States National Museum and two in the Museum of Comparative Zoology, taken in August 1932 and 1934 at Soledad, near Cienfuegos, Cuba, by B. B. Leavitt and P. J. Darlington. (Two "cotypes" of *S. caribaeus* are in the United States National Museum, through the kindness of Sr. Bierig.)

Records.—The following are the records known to me:

Cuba: Cayamas (Schwarz, in U.S.N.M.), Soledad (Darlington, in M.C.Z. and U.S.N.M.), Rangel (Bierig, in U.S.N.M. as *caribaeus*).

Specimens examined.—I have seen the four types as above, the two "cotypes" of *caribaeus*, and three other specimens from the Museum of Comparative Zoology.

Remarks.—This species is distinguished by its dense ground sculpture, its sparse umbilicate punctures, and other minor characters. It belongs in the subgenus *Platymedon.*

One of Dr. Darlington's specimens was found under a stone in company with ants of the species *Odontomachus haematoda* (Linnaeus).

7. MEDON CORDATUM, new species

Description.—Rufocastaneous. *Head* one-sixth longer than wide, not emarginate behind; sides parallel, nearly straight, moderately broadly rounded into base; eyes small, about three and a half times their length from base; labrum with a triangular emargination nearly twice as broad as deep with the outer angles rounded, without denticles; gular sutures approximate and parallel from near base to near apex; with somewhat irregular but moderate umbilicate punctures separated by one to two times their diameter; with rather feeble scaly ground sculpture. *Pronotum* as wide as head and as long as broad; sides rather strongly converging behind from anterior quarter and rounded into base; midline feebly canaliculate along middle; punctured and sculptured as head. *Elytra* with punctures about as coarse as on pronotum but a little denser; surface uneven but not distinctly sculptured. *Abdomen* with fine punctures not dense and with a few coarse punctures on each segment; without distinct ground sculpture. *Male*, eighth sternite with a broad triangular emargination, three times as wide as deep. *Female*, unknown. Length, 4½ mm.

Type locality.—Cuba, Buenos Aires, Trinidad Mountains, elevation 2,500 to 3,500 feet.

Types.—Holotype, male, in the Museum of Comparative Zoology, collected on May 8–14, 1936, by Dr. P. J. Darlington.

Records.—The following is the only record known to me:

Cuba: Buenos Aires (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the unique type.

Remarks.—This species is very distinct because of the elongate parallel head and the ground sculpture of the head and pronotum. It belongs in the subgenus *Platymedon.*

I have received no record of its habits.

XXXVII. Genus ORUS Casey

Orus Casey, 1884, p. 136.
Subgenus *Leucorus* Casey, 1905, pp. 191, 192.
Subgenus *Pycnorus* Casey, 1905, p. 194.

Genotypes.—*Orus punctatus* Casey (designated by Blackwelder, 1939). Of *Leucorus*, *L. rubens* Casey (designated by Blackwelder, 1939); of *Pycnorus*, *Scopaeus dentiger* LeConte=*Pycnorus dentiger* (LeConte) (designated by Blackwelder, 1939).

Diagnosis.—Body slender, strongly constricted; punctures of head not umbilicate; eyes normal; antennae posteriorly flexile, strongly geniculate, basal segment not very elongate, first and second segments not larger than rest; labrum not very deeply emarginate; fourth segment of maxillary palpus subulate; gular sutures moderately separate, not strongly converging at either end; neck more than one-fourth as wide as head; pronotum distinctly longer than wide; prosternum not expanded under coxae laterally; hypomera feebly lobed behind the coxae; anterior coxal cavities open behind; front coxae large, exserted; middle coxal cavities confluent; posterior coxae contiguous, "conical"; first and second abdominal sternites absent, fourth and fifth sometimes with a transverse fold, seventh modified, eighth emarginate; basal half of front tibia with a concavity lined with diagonal ctenidia; apex of posterior tibia with a ctenidium only on inner edge.

Remarks.—This genus is very similar to *Scopaeus*, from which it is distinguished principally by the width of the neck. The wide separation of these two genera in the key (see Blackwelder, 1939) is misleading and is corrected in the generic arrangement.

I have examined 51 specimens of this genus and describe two new species to receive them. The *Scopaeus umbra* of Sharp is distinct from either of these and is not known to me from the West Indies.

KEY TO WEST INDIAN SPECIES OF ORUS

1. Elytra with distinct punctures, without ground sculpture........ 1. volans
   Elytra without distinct punctures, with dense ground sculpture.. 2. cameroni

1. ORUS VOLANS, new species

Description.—Testaceous. *Head* distinctly emarginate behind, the angles rounded; the eyes separated from base by more than three times their length; labrum bidenticulate, with a minute prominence at each side; gular sutures moderately separate, almost parallel; without distinct punctation but with dense but feeble ground sculpture. *Pronotum* one-fourth longer than wide, angles rounded, sides not at all emarginate in front; midline slightly elevated posteriorly; with rather distinct punctures but obscured by fine ground sculpture. *Elytra* somewhat coriaceous but with distinct and rather large punctures; without distinct ground sculpture. *Male* unknown. *Female*, eighth sternite prominently rounded; eighth tergite rounded. Length, 1¾ to 2¼ mm.

Type locality.—Jamaica, between Toll Gate and Newport by way of Milk River and Figurary Gully.

Types.—Holotype and three paratypes, females, U.S.N M. No. 52422, collected by Chapin and Blackwelder on February 25, 1937.

Records.—The following are the records known to me:

Jamaica: Milk River (Blackwelder station 415), Spanish Town (Blackwelder station 377).

Specimens examined.—I have seen only the three types and one other example.

Remarks.—The sculpture of the elytra is the chief character separating this from *cameroni*. It belongs in the subgenus *Leucorus*.

The types were taken flying at dusk.

2. ORUS CAMERONI, new species

Description.—Castaneous. *Head* distinctly emarginate behind, the angles rounded; eyes separated from base by more than twice their length; labrum minutely bidenticulate; gular sutures moderately separated, closest along middle; very finely and densely punctulate, the punctulae not very distinct from the ground sculpture. *Pronotum* nearly one-fourth longer than wide, angles rounded; sides not emarginate in front; midline scarcely evident in any part; with very minute punctulae obscured by feeble ground sculpture. *Elytra* not distinctly punctate, with dense and fine subasperately tuberculate sculpture. *Male*, fourth and fifth sternites with a transverse fold; seventh with a longitudinal impression with a few rounded spicules scattered along it; eighth sternite with a narrow parallel incision, four times as deep as wide, the angles rounded. *Female*, eighth sternite prominently rounded; eighth tergite rounded. Length, 1½ to 2 mm.

Type locality.—Jamaica, between Bath and Lower White Horses by way of Sunning Hill, Trinityville, and Cedar Hill.

Types.—Holotype, male, and 13 paratypes, U.S.N.M. No. 52420, collected by Chapin and Blackwelder on February 28, 1937. One paratype has been deposited in the collection of Dr. Cameron, and one in the British Museum.

Records.—The following are the records known to me:

Cuba: Cayamas (Schwarz, in United States National Museum), Baragua (Christenson, in United States National Museum).

Jamaica: (Cameron collection), Trinityville (Blackwelder station 428), Montego Bay (Blackwelder station 407), Spanish Town (Blackwelder station 377), Milk River (Blackwelder station 415), Moneague (Blackwelder station 375), Santa Cruz (Blackwelder station 421), Fern Gully (Blackwelder station 374).

Hispaniola: HAITI (Cameron collection).

Grenada: (British Museum; Cameron collection).

Specimens examined.—I have seen 12 examples in the British Museum and 13 in Dr. Cameron's collection under the name *umbra* Sharp. Six more are in the United States National Museum, and 16 were collected by Chapin and Blackwelder in February 1937.

Remarks.—This species is apparently widely distributed although imperfectly collected. It belongs in the subgenus *Leucorus.*

The types were collected from under seaweed and flying at dusk.

XXXVIII. Genus SCOPAEUS Erichson

Scopaeus Erichson, 1840, p. 604.
Polyodontus Solier, 1849, p. 310 .
Scoponeus Motschulsky, 1858a, p. 641.
Leptorus Casey, 1886b, pp. 217, 220.
Scoponaeus Eichelbaum, 1909, p. 150 (emendation).
Pseudorus Casey, 1910, p. 190.
Scopoconeus Cameron, 1934, p. 79 (misspelling).
Scopaeoneus Cameron, 1940, p. 89 (misspelling).
Subgenus *Scopaeodera* Casey, 1886b, p. 217.
Subgenus *Scopaeopsis* Casey, 1905, p. 191.
Subgenus *Scopaeoma* Casey, 1905, p. 191.

Genotypes.—*Paederus laevigatus* Gyllenhal=*Scopaeus laevigatus* (Gyllenhal) (designated by Duponchel, 1841; designation of *S. didymus* Erichson by Blackwelder, 1939, in error). Of *Polyodontus*, *P. angustatus* Solier (monobasic); of *Scoponeus*, *S. testaceus* Motschulsky (designated by Blackwelder, 1939); of *Leptorus*, *Scopaeus exiguus* Erichson=*Leptorus exiguus* (Erichson) (designated by Blackwelder, 1939; the designation of *texanus* Casey by Tottenham, 1939 was subsequent to the above and therefore invalid); of *Pseudorus*, *P. prolixipennis* Casey (designated by Blackwelder, 1939); of *Scopaeodera*, *Echiaster nitidus* LeConte = *Scopaeodera nitida* (LeConte) (designated by Blackwelder, 1939); of *Scopaeopsis*, *Echiaster opacus* LeConte = *Scopaeopsis opaca* (LeConte) (designated by Blackwelder, 1939); of *Scopaeoma*, *Scopaeus rotundiceps* Casey = *Scopaeoma rotundiceps* (Casey) (designated by Blackwelder, 1939).

Diagnosis.—Body generally slender and strongly constricted; head finely punctate; vertex not carinate in males; antennae posteriorly flexile, not strongly geniculate, basal segment not very elongate, first and second not much larger than rest; labrum bidentate or quadridentate, not very deeply emarginate; fourth segment of maxillary palpus subulate; gular sutures always separate; neck one-fifth to one-eighth as wide as head; prosternum somewhat dilated under the coxae but widely separated from hypomera; hypomera somewhat lobed behind the coxae; front coxal cavities separate, open behind; front coxae large, exserted; middle coxal cavities confluent; posterior coxae contiguous, "conical"; first and second abdominal sternites absent; fourth and fifth sternites of male sometimes with a transverse fold or foveae; eighth sternite of male emarginate; apex of posterior tibiae with a ctenidium on inner edge only; tarsi 5-segmented; fourth segment not dilated.

Remarks.—This genus is unusually well represented in our fauna, and about half of the species are new. The classification of the subgenera is still in an unsatisfactory state, although I have attempted an arrangement in a previous paper.

The records of *Scopaeus mollis* Sharp from Jamaica in Gowdey, 1926, and of *Scopaeus illustris* Fauvel from Cuba by Leng and Mutchler, 1914, are probably misidentifications. Until the specimens can be reexamined, they must be regarded as doubtful records.

Of this genus from the West Indies I have seen 179 examples in the British Museum, 53 in the collection of Dr. Cameron, 32 in the United States National Museum, 41 from the Museum of Comparative Zoology, and 116 collected by me in 1935–37. These belong to 17 species of which 9 are new. One other species is known to me only from the original description.

KEY TO WEST INDIAN SPECIES OF SCOPAEUS

1.	Head, pronotum, and elytra shining, scarcely punctate or sculptured	2
	Head, pronotum, and elytra more or less densely punctate or sculptured	3
2.	Head and elytra with obsolete sculpture	18. chapini
	Head and elytra smooth and shining, as pronotum	17. pulchellus
3.	Head truncate or emarginate behind	4
	Head distinctly rounded behind	17
4.	Punctures of head "close, rugulose, umbilicate"	14. auripilis
	Punctures of head fine and dense, not umbilicate, or with dense fine ground sculpture only	5
5.	Disk of pronotum with distinct individual round tuberculi	6
	Disk of pronotum with normal fine punctures	7
6.	Apical margin of elytra paler	12. arena
	Elytra unicolorous	13. darlingtoni
7.	Pronotum usually parallel, front angles broadly rounded, sides in front not distinctly emarginate	8
	Pronotum more or less narrowed behind, front angles distinct, sides in front distinctly emarginate	15
8.	Pronotum very much depressed; color entirely testaceocastaneous or rufotestaceous	11. angusticollis
	Pronotum not very much depressed; color piceocastaneous to testaceous	9
9.	Fourth (and fifth) sternites of male with a transverse fold	10
	Fourth and fifth sternites without fold	13
10.	Eyes at about twice their length from base	11
	Eyes at about three times their length from base	5. rulomus
11.	Fold of fourth sternite complete across disk	12
	Fold of fourth sternite divided at middle	4. fasciatellus
12.	Seventh sternite of male broadly and feebly emarginate, eighth deeply emarginate	3. potamus
	Seventh sternite of male not at all emarginate, eighth feebly emarginate.	2. rivularis

13. Fourth sternite of male without carina -------- 14
Fourth sternite of male with a small posterior carina -------- 1. dominicanus
14. Pronotum densely and distinctly punctate -------- 8. pygmaeus
Pronotum sparsely and rather indistinctly punctate -------- 9. filum
15. Punctures of pronotum very fine and dense, without evident individual diameter -------- 16
Punctures of pronotum not very fine though dense, diameter of each clearly visible -------- 10. cupiens
16. Apex of elytra narrowly paler -------- 7. marginatus
Elytra unicolorous -------- 6. antennalis
17. Elytra finely punctate -------- 16. boxi
Elytra distinctly tuberculate -------- 15. rambouseki

1. SCOPAEUS DOMINICANUS, new species

Description.—Rufocastaneous. *Head* distinctly emarginate behind, the angles rather narrowly rounded; the eyes separated from base by about three times their length; labrum with two slender denticles near middle and a pair of small lateral ones; gular sutures narrowly separated in front and feebly diverging posteriorly; with very fine and dense setigerous punctures but without distinct ground sculpture. *Pronotum* about one-fourth longer than wide, anterior angles fairly broadly rounded; sides in front scarcely emarginate, nearly straight to rounded basal angles; without trace of midline except as posterior elevation; punctures and sculpture as on head but a little less distinct. *Elytra* very finely and densely tuberculate or rugulose-sculptured. *Male*, fourth and fifth sternites without fold; fourth with a small but abrupt keel at middle of posterior edge; eighth truncate and with a small triangular incision about as deep as wide. *Female*, eighth sternite prominently rounded; eighth tergite rounded. Length, 2½ mm.

Type locality.—Dominican Republic, Sánchez.

Types.—Holotype, male, and one paratype, female, in the Museum of Comparative Zoology; one paratype, female, in the United States National Museum (No. 52415); collected in July 1938 by Dr. P. J. Darlington.

Records.—The following is the only record known to me:

Hispaniola: DOMINICAN REPUBLIC, Sánchez (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the three types.

Remarks.—This species is distinct from all the other West Indian *Scopaeus* by the carinate fourth sternite of the male. It belongs in the subgenus *Scopaeus* s. str.

I have received no record of its habits.

2. SCOPAEUS RIVULARIS, new species

Description.—Castaneous, frequently somewhat picescent in part, apical borders of elytra always paler than rest. *Head* very feebly emarginate behind, the angles rather narrowly rounded; eyes separated from base by a little over twice their length; labrum with two small median denticles; gular sutures rather narrowly separated in front, feebly diverging posteriorly; finely and densely punctured, the punctures obscured by indistinct ground sculpture. *Pronotum* one-fourth longer than wide, anterior angles very broadly rounded; sides in front not emarginate, straight to rounded posterior angles; without trace of midline; punctures and sculpture similar to that of head. *Elytra* with sculpture similar to that of head but deeper and a little less dense. *Male*, fourth and fifth sternite with a transverse fold, seventh not emarginate; eighth sternite with a very feeble rounded emargination, not abrupt. *Female*, eighth sternite prominently rounded; eighth tergite with a slightly arcuate prominence. Length, 2 to 2½ mm.

Type locality.—Jamaica, 2 miles northeast of Gordon Town on road to Mavis Bank.

Types.—Holotype, male, and four paratypes, U.S.N.M. No. 52419. collected by Chapin and Blackwelder in February 1937.

Records.—The following are the records known to me:

Jamaica: Gordon Town (Blackwelder station 368B), Trinityville (Blackwelder station 428).

Specimens examined.—I have seen only the five types.

Remarks.—This species is superficially rather similar to several of its neighbors, but is distinguished by the feeble male characters. It belongs in the subgenus *Scopaeus* s. str.

3. SCOPAEUS POTAMUS, new species

Description.—Rufopiceous, the head generally lighter than the pronotum, elytra paler along apex. *Head* distinctly emarginate behind, the angles rather narrowly rounded; the eyes separated from the base by about twice their length; labrum with median denticles rather enlarged at base, with an indistinct outer pair; gular sutures moderately narrowly separated in front of middle and feebly diverging posteriorly; without distinct punctures but with dense fine ground sculpture. *Pronotum* one-fourth longer than wide; anterior angles strongly rounded, sides scarcely emarginate in front, feebly arcuate to posterior angles; with trace of impressed midline; with ground sculpture as on head but less distinct. *Elytra* not distinctly punctate but densely subasperately or tuberculately sculptured. *Male*, fourth and fifth sternites with a transverse fold, seventh broadly feebly emarginate; eighth sternite with a rather large and broad emargination, one-third as deep as wide. *Female*, eighth sternite rounded; eighth tergite rounded. Length, 2 to 2¼ mm.

Type locality.—St. Lucia, Roseau River, at elevation of about 200 feet, about 6 miles above its mouth.

Types.—Holotype, male, and three paratypes, U.S.N.M. No. 52417, collected by me on March 29, 1936.

Records.—The following is the only record known to me:

St. Lucia: (Blackwelder station 209A).

Specimens examined.—I have seen only the four types.

Remarks.—This species is readily distinguished by the male characters. It belongs in the subgenus *Scopaeus* s. str.

The types were collected in the sand at the edge of a stream in the forest.

4. SCOPAEUS FASCIATELLUS Erichson

Scopaeus fasciatellus ERICHSON, 1840, p. 609.—BERNHAUER and SCHUBERT, 1912, p. 242.—LENG and MUTCHLER, 1914, p. 405.—WOLCOTT, 1924, p. 78; 1936, p. 197.—BLACKWELDER, 1939a, p. 106.

Description.—Head and pronotum rufotestaceous, elytra and abdomen cinnamomeous. *Head* feebly emarginate behind, the angles moderately rounded; eyes separated from base by over twice their length; labrum with two median denticles and two lateral ones; gular sutures narrowly separated and virtually parallel throughout; very finely and densely punctate but with smooth shining intervals. *Pronotum* one-fifth longer than wide, anterior angles rather broadly rounded; sides in front not emarginate, scarcely arcuate to base; with narrow smooth midline basally; rather indistinctly punctate with surface uneven but shining. *Elytra* not distinctly punctate, surface almost asperately sculptured, pubescent, without other dense ground sculpture. *Male*, fourth and fifth sternite with a transverse fold widely divided at middle to form two foveae on each segment; seventh sternite flattened at middle, eighth very feebly broadly emarginate. *Female* (from Erichson), eighth sternite feebly triangularly produced. Length. 2½ mm.

Type locality.—Puerto Rico.

Types.—Either in Hope Museum, Oxford, or the Zoologische Museum, Berlin.

Records.—The following are the records known to me:

Puerto Rico: (Erichson, 1840; Leng and Mutchler, 1914; Wolcott, 1924, 1936). Ciales (Blackwelder station 63).

Specimens examined.—I have seen only one example collected by me on October 12, 1935.

Remarks.—The specimen on which this description is based agrees with the original description of Erichson in all essential characters. I have little doubt that the identification is correct. The shape of the head and the male characters indicate that this species belongs in the subgenus *Scopaeus* s. str.

My specimen was taken from under pebbles or flying at the bank of a river.

5. SCOPAEUS RULOMUS, new species

Description.—Testaceous with abdomen somewhat darker. *Head* feebly emarginate behind, the angles moderately rounded; eyes very small, separated from base by nearly three times their length; labrum with two small denticles at middle, and with a very indistinct smaller denticle at each side, the median pair enlarged at base: gular sutures moderately separated in front and feebly diverging posteriorly; punctures fine and irregular, separated by their diameter by flat shining intervals. *Pronotum* about one-third longer than wide, anterior angles moderately narrowly rounded; sides in front feebly emarginate, nearly straight to the rounded posterior angles; midline very vague; punctures a little sparser and less distinct than on head; surface similarly shining. *Elytra* not distinctly punctate but with very irregular and almost asperate sculpture, though surface is shining. *Male*, fourth and fifth sternites with a transverse fold widely interrupted at middle to form two separated pairs of foveae; eighth sternite truncate and with a broad and shallow acuminate emargination. *Female*, eighth sternite rounded; eighth tergite unmodified. Length, 1¾ mm.

Type locality.—Jamaica, between Bath and Lower White Horses by way of Sunning Hill, Trinityville, and Cedar Hill.

Types.—Holotype, male, and one paratype, female, U.S.N.M. No. 52421, collected by Chapin and Blackwelder on February 28, 1937, and February 2, 1937.

Records.—The following are the records known to me:

Jamaica: Trinityville (Blackwelder station 428), Fern Gully (Blackwelder station 374).

Specimens examined.—I have seen only the two types.

Remarks.—This is a very small and fragile species which belongs in the subgenus *Scopaeus* s. str. It is chiefly remarkable for the great distance between the eyes and the base of the head.

The types were both taken flying at dusk.

6. SCOPAEUS ANTENNALIS Cameron

Scopaeus antennalis CAMERON, 1913b, p. 349.—LENG and MUTCHLER, 1917, p. 199.
Scopaeus antennatus SCHEERPELTZ, 1933, p. 1265 (misspelling).
Scopaeus bicoloricornis BIERIG, MS.

Description.—Piceous to piceocastaneous or castaneous. *Head* slightly emarginate behind, angles moderately rounded; labrum with two denticles separated by a small rounded emargination, and with two additional minute denticles laterally; the median denticles are somewhat enlarged at base; gular sutures moderately separated, feebly diverging posteriorly; with minute punctures so dense as to appear like ground sculpture, but surface still shining. *Pronotum* one-ninth longer than wide, anterior angles narrowly rounded, sides feebly emarginate in front, moderately arcuate posteriorly; with scarcely a trace of midline; not very distinctly punctate but with sculpture forming irregular punctiform depressions, without additional ground sculpture. *Elytra* not punctured but with distinct and strong tuberculi separated by less than their diameter; without ground sculpture except basally along suture. *Male*, fourth and fifth sternites with a transverse fold, seventh feebly broadly emarginate; eighth sternite with a deep triangular emargination, apex narrowly rounded, about two-thirds as deep as wide, and with outer angles rounded. *Female*, eighth sternite rounded; eighth tergite rounded. Length, 2½ to 3 mm.

Type locality.—Haiti.

Types.—In the collection of Dr. Cameron.

Records.—The following are the records known to me:

Cuba: (Bierig and Cameron collection, as *bicoloricornis*), Soledad (Darlington, in M.C.Z. and U.S.N.M.), Aguadores in Oriente (Darlington, in M.C.Z. and U.S.N.M.), Cayamas (Schwarz, in U.S.N.M.), Baragua (Christenson, in U.S.N.M.).

Hispaniola: HAITI (Cameron, 1913; Leng and Mutchler, 1917; Scheerpeltz, 1933), Desbarriere (Darlington, in M.C.Z.); DOMINICAN REPUBLIC, Puerto Plata (Darlington, in M.C.Z. and U.S.N.M.), Constanza (Darlington, in M.C.Z.), Sánchez (Darlington, in M.C.Z. and U.S.N.M.), San José de las Matas (Darlington, in M.C.Z. and U.S.N.M.).

Puerto Rico: Jayuya (Oakley, in U.S.N.M.).

St. Croix: (Blackwelder station 341).

Guadeloupe: Basse Terre (Blackwelder station 79B).

St. Lucia: (Blackwelder station 209A).

Specimens examined.—I have seen the unique type in Dr. Cameron's collection, 16 examples in the United States National Museum, 19 from the Museum of Comparative Zoology, and 12 collected by me in 1935–37. Two additional specimens are in Dr. Cameron's collection under this name but labeled also as cotypes of *bicoloricornis* Bierig (MS. name).

Remarks.—I did not examine the two "cotypes" from Cuba. The above description was taken entirely from the specimens in the United States National Museum. Dr. Cameron did not mention the folds of the fourth and fifth sternites, and I failed to examine the type for this character. If they are not present, then my specimens may be a distinct species. The shape of the head and the male characters place this species in the subgenus *Scopaeus* s. str.

My specimens were taken "on cucumber," under rotting mango fragments, under sand and gravel along a stream, and flying at dusk. The Baragua specimen was taken "in soil of sugarcane fields."

7. SCOPAEUS MARGINATUS Cameron

Scopaeus marginatus Cameron, 1913b, p. 319.—Leng and Mutchler, 1917, p. 199.—Scheerpeltz, 1933, p. 1267.—Blackwelder, 1939a, p. 106.

Description.—Piceous, the apex of the elytra narrowly rufotestaceous. *Head* slightly emarginate behind, the angles rounded: labrum with two moderate median denticles separated by a rounded notch, outer angles prominently angled, almost denticulate; gular sutures moderately separated in front, divergent posteriorly; very finely but discretely punctate, without distinct ground sculpture. *Pronotum* about one-sixth longer than wide; anterior angles narrowly rounded; sides scarcely emarginate in front, moderately arcuate to base; rather indistinctly and confusedly punctate, not distinctly sculptured but rather coriaceous. *Elytra* not punctate but with tuberculate sculpture, the tuberculi rather feeble and rounded, surface uneven. *Male*, fourth and fifth sternites with a transverse fold, seventh slightly emarginate and feebly impressed, eighth with a deep narrow excision, the outer angles broadly rounded. *Female*, eighth sternite rounded. Length, 2½ to 3 mm.

Type locality.—Jamaica.

Types.—In collection of Dr. Cameron.

Records.—The following are the records known to me:

Cuba: Soledad (Darlington, in M.C.Z. and U.S.N.M.).

Jamaica: (Cameron, 1913; Leng and Mutchler, 1917; Scheerpeltz, 1933; Hubbard, in U.S.N.M.), Trinityville (Blackwelder station 428), Montego Bay (Blackwelder station 407), Santa Cruz (Blackwelder station 421), Gordon Town (Blackwelder stations 368B, 382, 383), Blue Mountains (Darlington, in M.C.Z.).

Specimens examined.—I have seen the type and 8 other specimens in Dr. Cameron's collection, 1 in the Museum of Comparative Zoology, 2 females in the United States National Museum, and 19 examples collected by Chapin and Blackwelder in February 1937.

Remarks.—There is some variation in the density of the punctation of the head and pronotum and likewise in the appearance of vague ground sculpture. The shape of the head and the characters of the male indicate that this species belongs in the subgenus *Scopaeus* s. str., although the classification of the subgenera is not yet in a very settled condition.

Our specimens were collected under stones along the edge of streams and flying at dusk.

8. SCOPAEUS PYGMAEUS Erichson

Scopaeus pygmaeus ERICHSON, 1840, p. 608.—BERNHAUER and SCHUBERT, 1912, p. 251.—LENG and MUTCHLER, 1914, p. 405.—WOLCOTT, 1924, p. 78; 1936, p. 197.—BLACKWELDER, 1939a, p. 106.

Scopaeus simplicicollis CAMERON, 1913b, p. 348.—LENG and MUTCHLER, 1917, p. 199.—SCHEERPELTZ, 1933, p. 1269.—BLACKWELDER, 1939a, p. 106.

Description.—Cinnamomeous, sometimes picescent or paler in part, apical half of each elytron indefinitely bordered with testaceous. *Head* very feebly emarginate behind, the angles narrowly rounded; eyes separated from base by two and one-half times their length; labrum with two very slender median denticles and with a distinct pair of outer denticles; gular sutures rather narrowly separated anteriorly, feebly divergent posteriorly; finely and densely punctate but with intervals shining; without ground sculpture. *Pronotum* one-fifth longer than wide; anterior angles moderately narrowly rounded, sides in front scarcely emarginate, feebly arcuate to base; midline feeble, slightly depressed; not distinctly punctate but with dense though not coarse ground sculpture. *Elytra* not very distinctly punctate but pubescent and minutely and indefinitely broken up, with ground sculpture along suture at base. *Male*, fourth and fifth sternites without trace of transverse fold, seventh very slightly emarginate; eighth sternite with a small abrupt rounded emargination. *Female*, eighth sternite slightly produced at middle; eighth tergite rounded. Length, 2 to 2½ mm.

Type locality.—Puerto Rico. Of *simplicicollis*, Balthazar, Grenada.

Types.—Either in Hope Museum, Oxford, or the Zoologische Museum, Berlin. Of *simplicicollis*, in the British Museum.

Records.—The following are the records known to me:

Jamaica: Spanish Town (Blackwelder station 377), Santa Cruz (Blackwelder station 421), Black River (Blackwelder station 416), May Pen (Blackwelder station 425B), Milk River (Blackwelder station 415).

Puerto Rico: (Erichson, 1840; Leng and Mutchler, 1914; Wolcott, 1924, 1936), Guanica (Blackwelder station 355A), Jayuya (Oakley, in United States National Museum).

St. Croix: (Blackwelder stations 341, 344; Beatty, in United States National Museum).

St. Lucia: (Cameron collection).

Barbados: (British Museum).

St. Vincent: (Cameron, 1913, as *simplicicollis;* British Museum; Cameron collection; Scheerpeltz, 1933; Blackwelder stations 170, 174, 176A).

Grenadines: Mustique (British Museum; Cameron collection).

Grenada: (Cameron, 1913, as *simplicicollis;* British Museum; Cameron collection; Scheerpeltz, 1933).

Specimens examined.—I have examined 122 examples in the British Museum (including the type of *simplicicollis*), 29 examples in the collection of Dr. Cameron, 1 in the United States National Museum, and 57 collected by Chapin and Blackwelder in 1935–37.

Remarks.—This is a variable species in respect to the sculpture of the pronotum and elytra, the length of the temples, and the abruptness of the emargination of the eighth sternite of the male. The description is drawn principally from a specimen from St. Vincent. This species belongs in the subgenus *Scopaeus* s. str.

My specimens were collected from rubbish on the muddy bank of lagoons and ponds, from under seaweed on the beach, from under stones along streams, and flying at dusk.

9. SCOPAEUS FILUM Sharp

Scopaeus filum Sharp, 1886, p. 542.—Casey, 1886, p. 220.—Bernhauer and Schubert, 1912, p. 247.—Blackwelder, 1939a, p. 106.

Description.—Castaneous or ferrugineous to testaceous. *Head* truncate behind, not distinctly emarginate, angles moderately rounded; labrum with two small denticles at middle; gular sutures rather narrowly separated in front of middle, feebly divergent posteriorly; very finely and rather densely punctate but with shining intervals; without ground sculpture. *Pronotum* one-fifth longer than wide, anterior angles rather broadly rounded, sides not distinctly emarginate in front, straight behind and broadly rounded into base; midline sometimes feebly channeled at base or apex; pronotum without distinct punctures except minute punctulae; surface slightly uneven but without ground sculpture. *Elytra* not punctate but with a dense indistinct sculpture which seems to be obsoletely tuberculate. *Male*, fourth and fifth sternites without transverse folds, seventh not distinctly emarginate; eighth sternite with a small shallow rounded abrupt emargination, less than one-half as deep as wide. *Female*, eighth sternite prominently rounded; eighth tergite rounded. Length, 2 mm.

Type locality.—Guatemala, Paso Antonio.

Types.—In the British Museum.

Records.—The following are the records known to me:

Cuba: Cayamas (Schwarz, in U.S.N.M.), Baragua (Christensen, in U.S.N.M.), Soledad (Darlington, in M.C.Z. and U.S.N.M.).

Jamaica: (Cameron collection), Milk River (Blackwelder station 415).

Hispaniola: Haiti (Cameron collection), Dominican Republic, Puerto Plata (Darlington, in M.C.Z. and U.S.N.M.), Sánchez (Darlington, in M.C.Z.), Barahona (Darlington, in M.C.Z. and U.S.N.M.), Villa Altagracia (Darlington, in M.C.Z.).

Central America: Guatemala (Sharp, 1886).

Specimens examined.—I have seen 8 examples in the United States National Museum, 16 from the Museum of Comparative Zoology, 9 in the collection of Dr. Cameron, and 2 collected by Chapin and Blackwelder in February 1937. I have not examined the types.

Remarks.—Since I have not compared the West Indian specimens with the type of *filum* I am not able to say definitely that they are the same. The description of that species agrees entirely with our specimens except that in the latter the elytra are not visibly punctate. I believe it probable that they are the same.

My specimens were collected at light or flying at dusk; the Soledad examples were taken in a Berlese funnel.

10. SCOPAEUS CUPIENS, new species

Description.—Piceous to rufopiceous, elytra and abdomen castaneous. *Head* slightly emarginate behind, angles moderately rounded; labrum with two small denticles at middle, each somewhat enlarged at base; gular sutures straight, narrowly separated in front, divergent posteriorly; punctures distinct and dense but surrounded by fine indistinct ground sculpture. *Pronotum* nearly one-sixth longer than wide; anterior angles rather narrowly rounded; sides in front distinctly emarginate, moderately arcuate posteriorly; with indistinct smooth midline; not distinctly punctured but sculptured to resemble obsolete umbilicate punctures, more distinctly punctiform along middle; without other ground sculpture. *Elytra* not punctate but with small tuberculi separated by less than their diameter, and with additional ground sculpture along suture basally. *Male*, unknown. *Female*, eighth sternite broadly rounded; eighth tergite rounded at apex. Length, 2½ mm.

Type locality.—Jamaica.

Types.—Holotype, female, and one paratype, U.S.N.M. No. 52416, collected by H. G. Hubbard.

Records.—The following are the records known to me:

Jamaica: (Hubbard, in United States National Museum), Santa Cruz (Blackwelder station 421).

Specimens examined.—I have seen only the two types.

Remarks.—The paratype is imperfect, having lost the abdomen. The species is distinguished from the others principally by details of sculpture. The shape and sculpture of the head place it in the subgenus *Scopaeus* s. str.

The paratype was caught flying at dusk.

11. SCOPAEUS ANGUSTICOLLIS Cameron

Scopaeus angusticollis CAMERON, 1913b, p. 346.—LENG and MUTCHLER, 1917, p. 199.—SCHEERPELTZ, 1933, p. 1265.

Description.—Reddish brown, abdomen lighter with posterior margin of tergites and apex testaceous. *Head* emarginate posteriorly, angles rounded; closely and finely punctate. *Pronotum* one-fourth longer than wide, anterior angles rounded but traceable; feebly narrowed posteriorly; with a fine median line posteriorly and an obsolete impression on each side near base; punctures fine and close, much finer than on head. *Elytra* finely and closely but less distinctly punctured than pronotum. *Male*, unknown. *Female* (presumably with sternites unmodified). Length, 3⅘ mm. (From Cameron.)

Type locality.—Grenada, Balthazar.

Types.—Unique female in the British Museum.

Records.—The following are the records, known to me:

Cuba: Aguadores, in Oriente (Darlington, in M.C.Z.).

Grenada: (Cameron, 1913; Leng and Mutchler, 1917; Scheerpeltz, 1933; British Museum).

Specimens examined.—I have seen only the unique type and one specimen from the Museum of Comparative Zoology, as explained below.

Remarks.—Although the original description does not mention the presence or absence of ground sculpture on the head, I assume that it is not present. This species belongs in the subgenus *Scopaeus* s. str.

Since the above description was written I have received one example from Cuba that agrees very closely with it. The specimen is a female and shows the following additional characters: Head without ground sculpture; eyes separated from base of head by two and a half times their length; pronotum unusually rounded but much depressed, without posterior depressions, although the disk is flattened; length, 3 mm.

I find no record of its habits.

12. SCOPAEUS ARENA, new species

Description.—Head rufous, pronotum rufous or rufopiceous, elytra dark rufopiceous with apex narrowly testaceous, abdomen castaneous. *Head* truncate behind, angles moderately broadly rounded; labrum with two large prominent teeth more or less modified or denticulate at base, and a pair of minute outer denticles; gular sutures narrowly separated, parallel from in front of middle; without punctation but with very fine dense ground sculpture. *Pronotum* two-sevenths longer than wide; anterior angles rounded continuously with sides, not distinctly emarginate in front, feebly arcuate posteriorly; midline vaguely elevated posteriorly; sculptured similarly to head or a trifle more distinctly. *Elytra* not punctate but with rather dense rounded tuberculi, with additional tuberculate ground sculpture along suture at base. *Male* unknown. *Female*, eighth sternite rounded. Length, 3¼ to 3½ mm.

Type locality.—St. Lucia, Millette River, at junction with the Roseau River, 5 miles south of Castries.

Types.—Holotype and one paratype, females, United States National Museum No. 52413, collected by me on April 3, 1936.

Records.—The following is the only record known to me:

St. Lucia: (Blackwelder station 211A).

Specimens examined.—I have seen only the two types.

Remarks.—The shape and sculpture of the head place this species in the subgenus *Scopaeus* s. str.

The types were taken under stones and sand at the edge of a stream in the dense forest.

13. SCOPAEUS DARLINGTONI, new species

Description.—Piceocastaneous. *Head* feebly emarginate behind, the angles rather broadly rounded; labrum with two small median denticles and possibly a lateral pair; gular sutures parallel, narrowly separated; with dense round tuberculi somewhat obscured on disk; without distinct ground sculpture. *Pronotum* one-ninth longer than wide, the anterior angles rather broadly rounded, sides scarcely emarginate in front, evenly curved into base behind; disk depressed on either side of midline near base, midline very fine; with round tuberculi more distinct than on head; without distinct ground sculpture. *Elytra* not punctate but with tuberculi as on pronotum, a little coarser but somewhat confused by indistinctly rugulose surface. *Male*, fourth and fifth sternites with a complete transverse fold on each at middle, seventh broadly feebly emarginate; eighth with a broad feeble emargination opening into a triangular excision about as deep as wide. *Female*, unknown. Length, 3½ mm.

Type locality.—Cuba, Buenos Aires in Trinidad Mountains, elevation 2,500 to 3,500 feet.

Types.—Holotype, male, in the Museum of Comparative Zoology, collected on May 8–14, 1936, by Dr. P. J. Darlington.

Records.—The following is the only record known to me:

Cuba: Buenos Aires, in Trinidad Mountains (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the unique type.

Remarks.—This species is at once distinguishable by the tuberculi on the head, pronotum, and elytra. Those on the head can be observed only with a magnification of about 60 times. *S. arena* has the tuberculi on the elytra but lacks them on the pronotum and head. The species belongs in the subgenus *Scopaeus* s. str.

I have received no record of its habits.

14. SCOPAEUS AURIPILIS Cameron

Scopaeus auripilis CAMERON, 1913b, p. 347.—LENG and MUTCHLER, 1917, p. 199.—SCHEERPELTZ, 1933, p. 1265.

Description.—Head and pronotum ferrugineous or black, elytra black with apical margin sharply testaceous, abdomen black with apex of eighth and ninth tergites testaceous. *Head* emarginate behind, posterior angles right, only blunted at the extreme apex; punctation close, rugulose, umbilicate. *Pronotum* scarcely longer than broad, widest at anterior angles which are obtuse, gradually narrowed behind to rounded posterior angles, more abruptly in front; with a very fine shining median carinula at base but without trace of basal foveae; punctation as on head. *Elytra* with punctures close and rugulose, rather finer than that of pronotum, especially behind. *Abdomen* closely and finely punctured. *Pubescence* long and yellow throughout. *Male*, unknown. *Female*, without special modifications. Length, 3 mm. (From Cameron.)

Type locality.—Grenada, Black Forest Estate, Windward side.

Types.—Unique female in the British Museum.

Records.—The following are the records known to me:

St. Vincent: (Cameron, 1913; Leng and Mutchler, 1917; Cameron collection; Scheerpeltz, 1933).

Grenada: (Cameron, 1913; Leng and Mutchler, 1917; British Museum).

Specimens examined.—I have seen only the type in the British Museum and one example in Dr. Cameron's collection.

Remarks.—My examination of the type confirms the relative dimensions given by Dr. Cameron. One specimen from each island is all that are now known of this species. The shape and sculpture of the head indicate that it belongs in the subgenus *Scopaeus* s. str.

I find no record of its habits.

15. SCOPAEUS RAMBOUSEKI (Bierig)

Scopaeopsis ramboušeki Bierig, 1934a, p. 24, 26, 27, figs. 1–10.

Description.—Piceous, anterior margin of pronotum rufopiceous. *Head* truncate or feebly rounded behind, angles rounded, sides feebly converging from eyes posteriorly; labrum with two large slender teeth somewhat enlarged and modified at base, and with two small denticles outside the others; gular sutures parallel, very narrowly separated throughout; very finely and indistinctly punctate but with smooth intervals; without ground sculpture. *Pronotum* about one-fifth longer than wide; anterior angles broadly rounded, sides straight in front and moderately arcuate behind; with indistinct midline and feeble basal impressions; rather indistinctly and irregularly punctate but with flat intervals. *Elytra* not punctate, but with feeble and irregular tuberculi, often separated by their diameter, intervals with traces of ground sculpture. *Male*, unkown. *Female*, seventh tergite with a small abrupt shallow emargination at middle, eighth tergite biemarginate to form a small triangular median lobe; eighth sternite not modified. Length, 3½ mm.

Type locality.—Cuba, "Morro (Habana); Rio Ariguanabo; Caimito del Guayabal."

Types.—In the collection of Sr. Bierig. One paratype is in the collection of Dr. Cameron and one is in the United States National Museum (No. 52725).

Records.—The following are the records known to me:

Cuba: (Cameron collection), Habana (Bierig, 1934), Rio Ariguanabo (Bierig, 1934), Caimito del Guayabal (Bierig, 1934), Baragua (Christenson, in U.S.N.M.), Soledad (Weber, in M.C.Z.).

Specimens examined.—I did not see the "cotype" supposed to be in Dr. Cameron's collection, but I have studied one in the United States National Museum; also two examples in the National Museum and one specimen from the Museum of Comparative Zoology.

Remarks.—The characters of the tergites of the female distinguish this species readily. The specimen from Soledad does not show the emargination of the seventh tergite. There is some difference in the shape of the head between the two Baragua specimens, in one being truncate, in the other distinctly rounded. The Soledad specimen agrees with the latter in this character. This species was described in the genus *Scopaeopsis*, which is here considered to be a subgenus of *Scopaeus*. The shape of the head and the characters of the male, however, indicate that it belongs in the subgenus *Scopaeus* s. str.

Bierig records the species as follows: "Vive en orillas humedas y parec ser raro"; the other specimens were taken at light or by sweeping.

16. SCOPAEUS BOXI, new species

Description.—Head and pronotum rufous or piceorufous, elytra testaceous to castaneous, indefinitely paler at apex, abdomen castaneous. *Head* truncate behind, almost rounded, the angles moderately rounded; eyes separated from base by less than twice their length; labrum with two denticles at middle and a small triangular additional denticle at each side; gular sutures moderately separated, most approximate a little before middle, very feebly diverging posteriorly; finely and densely punctured, but irregularly and with vague ground sculpture. *Pronotum* one-fourth longer than wide; anterior angles almost completely rounded from neck to sides, which are nearly straight; with trace of smooth midline; punctures fine and dense; without ground sculpture. *Elytra* with punctures indistinct but dense, the surface appearing subasperate. *Male*, fourth and fifth sternites with a transverse fold, seventh not emarginate, eighth sinuate at middle but not distinctly emarginate. *Female*, eighth sternite rounded; eighth tergite a little prominent at middle. Length, 2 to 2¼ mm.

Type locality.—St. Lucia, Roseau River, at elevation of 200 feet, about 6 miles above its mouth.

Types.—Holotype, male, and three paratypes, U. S. N. M. No. 52418, collected by me on March 29, 1936.

Records.—The following is the only record known to me:

St. Lucia: (Blackwelder station 209A).

Specimens examined.—I have seen only the four types.

Remarks.—This species is very similar to *rivularis* from Jamaica but differs constantly in numerous small characters. The elytra are not distinctly bordered in apical half; the head is not at all emarginate behind; the temples are shorter; the labrum has an extra pair of denticles; the gular sutures are closest less anteriorly; the ground sculpture of the head is less distinct; with trace of smooth midline; and eighth sternite of male even more feebly emarginate. Until we find specimens on the intervening islands, it is best to keep the two separate. The species appears to belong in the subgenus *Scopaeus* s. str.

The types were found in sand along the stream.

17. SCOPAEUS PULCHELLUS Erichson

Scopaeus pulchellus Erichson, 1840, p. 609.—Sharp, 1876, p. 248; 1886, p. 547.—Casey, 1886b, p. 220; 1905, p. 217.—Bernhauer and Schubert, 1912, p. 250.—Blackwelder, 1939a, p. 106.

Scopaeus apicipennis Sharp, 1886, pp. 547, 548.—Bernhauer and Schubert, 1912, p. 250.

Scopaeodera pulchella (Erichson) Casey, 1886b, p. 220; 1905, p. 217.

Description.—Dark rufous, outer apical angles of elytra luteous, abdomen castaneous, piceseent at apex. *Head* rounded behind but emarginately interrupted at neck; labrum with two large teeth separated by a rather large medium notch, and two small outer denticles: gular sutures moderately separated, most approximate before middle; with very sparse obsolete and fine punctures, surface very smooth and strongly shining. *Pronotum* one-third longer than wide, anterior angles very broadly rounded; sides in front feebly emarginate, posterior evenly arcuate to base; smooth, shining, almost entirely impunctate; without midline of any sort. *Elytra* not distinctly punctate or sculptured, surface slightly uneven but shining. *Male*, fourth and fifth sternites without trace of transverse fold; seventh not emarginate, but with a narrow longitudinal groove apically; eighth sternite missing from my specimen. *Female*, eighth sternite prominently rounded. Length, 2⅔ mm.

Type locality.—"Valle Araguensi Columbiae" (=Venezuela).

Types.—Either in the Hope Museum, Oxford, or the Zoologische Museum, Berlin.

Records.—The following are the records known to me:

Grenada: (British Museum; Cameron collection; Blackwelder station 155).

Trinidad: Tacarigua (Blackwelder station 107A).

South America: Venezuela (Erichson, 1840), Colombia (Casey, 1886, 1905; Sharp, 1876, 1886).

Central America: Mexico (Bernhauer and Schubert, 1912), Guatemala (Sharp, 1886, as *apicipennis*), Panama (Sharp, 1886, as *apicipennis*).

Specimens examined.—I have seen seven examples in the British Museum, two in Dr. Cameron's collection, and three collected by me in 1935–37.

Remarks.—Although I have seen no examples from South America, it seems likely that these specimens from the West Indies are Erichson's species. They were so identified in the British Museum and Dr. Cameron's collection. The above description was taken from my Trinidad examples.

The specimen I have referred to as a male has the abdomen mutilated. The sixth, seventh, eighth, and ninth tergites and the eighth and ninth sternites are missing. The groove on the seventh sternite is the only evidence that it is a male. The smooth integuments of this species place it in the subgenus *Scopaeodera.*

The types and my specimens were found under stones at the edge of the river.

18. SCOPAEUS CHAPINI, new species

Description.—Piceous, pronotum rufopiceous. *Head* completely and evenly rounded behind from eye to eye; labrum rather strongly bidentate, with a moderate notch between the teeth; gular sutures most approximate along middle, never very close; with dense punctation or sculpture nearly obsolete, surface strongly shining. *Pronotum* one-third longer than wide, anterior angles rounded continuously with sides, sides in front feebly emarginate, posteriorly evenly arcuate to base; sculptured still more obsoletely than head, surface strongly shining, without definite midline; with two rather strong impressions at base leaving a narrow cariniform median ridge. *Elytra* coriaceous, not punctate but with sparse obsolescent tuberculi; shining. *Male,* fourth and fifth sternites without trace of a transverse fold; seventh sternite very feebly and widely emarginate; eighth sternite with a broad triangular emargination, one-half as deep as wide, with outer angles completely rounded into sides of sternite. *Female,* unknown. Length, 3 mm.

Type locality.—Jamaica, between Luana and Kensworth via Lacovia, Santa Cruz, and Spur Tree, parishes of St. Elizabeth and Manchester.

Types.—Holotype, male, U.S.N.M. No. 52412, collected by Chapin and Blackwelder on February 24, 1937.

Records.—The following is the only record known to me:

Jamaica: Santa Cruz (Blackwelder station 421).

Specimens examined.—I have seen only the unique type.

Remarks.—This species does not fall clearly into any subgenus in my key (Blackwelder, 1939a). However, if the obsolescent sculpture be considered to be in the process of disappearing, phylogenetically, then the species keys out to *Scopaeoma*, in which it seems to belong by the combination of other characters.

The type was caught flying at dusk.

XXXIX. Genus MONISTA Sharp

Monista Sharp, 1876, p. 271.

Genotype.—*Monista typica* Sharp (original designation; International Rules, Article 30, I, *b*).

Diagnosis.—Head finely punctate, sometimes biimpressed to form a median ridge; eyes small; antennae posteriorly flexile, not strongly geniculate, basal segment not much elongate, first and second not enlarged; labrum rather large, feebly emarginate, without denticles; gular sutures separated but parallel and very approximate; fourth segment of maxillary palpus subulate; neck one-fifth as wide as head or less; prothorax not prolonged in front; prosternum rather widely dilated under the front coxae but widely separated from the hypomera; hypomera feebly lobed behind the coxae; front coxal cavities narrowly open behind; anterior coxae large, exserted; middle coxal cavities confluent; posterior coxae contiguous, "conical"; first and second abdominal sternites absent, eighth emarginate in male; apex of posterior tibia with a distinct ctenidium only on the inner edge; tarsi 5-segmented, fourth segment lobed beneath.

Remarks.—The West Indian species of this genus are at once distinguished from all Staphylinidae known to me by the peculiar carinate structure of the vertex of the male. This is apparently not present on many of the species described from South and Central America. The genus has been placed near *Astenus* and *Echiaster* but is more similar in structure to *Scopaeus* and *Stilicus*.

I have seen from the West Indies 34 specimens belonging to four species of which three are new.

KEY TO WEST INDIAN SPECIES OF MONISTA

1. Pronotum with fine ground sculpture; cephalic carina close to neck. 1. **personata**
   Pronotum without distinct ground sculpture; cephalic carina distant from neck ____ 2
2. Head minutely tuberculate ____ 4. **vola**
   Head more or less distinctly punctate, not at all tuberculate ____ 3
3. Punctures of head and pronotum obsolescent ____ 2. **trinitatis**
   Punctures of head and pronotum distinct ____ 3. **darlingtoni**

1. MONISTA PERSONATA Cameron

Monista personata Cameron, 1913b, p. 339.—Leng and Mutchler, 1917, p. 198.—Scheerpeltz, 1933, p. 1240.—Blackwelder, 1939a, p. 106.

Description.—Rufotestaceous, apex of elytra paler. *Head* orbicular; eyes small, not prominent; vertex modified in male; impunctate, but with a few tiny tuberculi especially above the eyes; with distinct ground sculpture above and behind but merely coriaceous in front; labrum broadly rounded but very feebly emarginate at middle. *Pronotum* as broad as long, evenly rounded at sides but more narrowed in front; with feebly umbilicate punctures separated by less than their diameter and obscured by fine ground sculpture. *Elytra* rather finely and indistinctly submuricately punctate, surface somewhat uneven but punctures not abrupt; without ground sculpture. *Abdomen* finely sparsely and minutely submuricately punctured; without ground sculpture. *Male*, vertex behind the eyes with a circular depression divided longitudinally by a strong carina; eighth abdominal sternite broadly and feebly emarginate. *Female*, vertex unmodified; eighth sternite not emarginate. Length, 2½ to 3 mm.

Type locality.—Grenada.

Types.—Twelve specimens (one labeled type) in the British Museum.

Records.—The following is the only record known to me:

Grenada: (Cameron, 1913; Leng and Mutchler, 1917; British Museum).

Specimens examined.—I have seen the 12 examples in the original series in the British Museum and 7 in the collection of Dr. Cameron. One example was borrowed from the British Museum for further study.

Remarks.—The male of this species is easily recognizable at a glance by the unusual carinate head and the posterior position of the carina.

I find no record of its habits.

2. MONISTA TRINITATIS, new species

Description.—Rufous or rufotestaceous, with apex of elytra broadly paler. *Head* subhexagonal; eyes small but prominent, at over twice their length from base; vertex not modified (in female); labrum broadly rounded but feebly emarginate at middle; with rather coarse punctures nearly obsolete throughout, nearly tuberculose basally; with irregular ground sculpture on the clypeus. *Pronotum* one-twelfth longer than wide, widest at anterior two-fifths, thence strongly narrowed to neck, moderately narrowed to base; with punctures as on head, but without distinct ground sculpture. *Elytra* with punctures less distinct than pronotum, the intervals smooth and flat; without distinct ground sculpture. *Abdomen* finely sparsely and minutely submuricately punctate; without ground sculpture. *Male*, unknown. *Female*, sternites unmodified. Length, 2⅓ mm.

Type locality.—Trinidad, foothills north of Tunapuna.

Types.—Holotype in the Museum of Comparative Zoology; one paratype in the United States National Museum (No. 52357); collected on June 29, 1935, and May 25, 1935, by N. A. Weber.

Records.—The following is the only record known to me:

Trinidad: Tunapuna (Weber, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the two types.

Remarks.—This species is distinguished by its obsolescent punctation and lack of pronotal ground sculpture.

I have received no record of its habits.

3. MONISTA DARLINGTONI, new species

Description.—Head and pronotum piceous, elytra rufopiceous with apical fourth testaceous, abdomen rufous. *Head* suborbicular; eyes small but prominent, at over twice their length from base; vertex not modified (in female); labrum broadly rounded and feebly emarginate at middle; punctures coarse and distinct, usually separated by less than half their diameter; without distinct ground sculpture. *Pronotum* as broad as long, widest at anterior two-thirds, thence strongly narrowed to neck, and rather strongly to base; with punctures as on head but a little less distinct; without ground sculpture. *Elytra* with umbilicate punctures almost entirely obsolete having merely the central setigerous punctule; without distinct ground sculpture. *Abdomen* finely, sparsely, and minutely submuricately punctate; without ground sculpture. *Male*, unknown. *Female*, sternites unmodified. Length. 3¼ mm.

Type locality.—Trinidad, St. Augustine.

Types.—Holotype in the Museum of Comparative Zoology; one paratype in the United States National Museum (No. 52358); collected in April 1929 by Dr. P. J. Darlington.

Records.—The following is the only record known to me:

Trinidad: St. Augustine (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the two types.

Remarks.—This species is distinguished by the distinct punctures of the head and pronotum and the absence of sculpture on the clypeus. Like the preceding species the lack of males leaves us in doubt as to the condition of the vertex in that sex.

I have received no record of its habits.

4. MONISTA VOLA, new species

Description.—Rufous, apex of elytra and all of abdomen rufotestaceous. *Head* subquadrate; eyes small but somewhat prominent; vertex modified in male; impunctate but with rather dense setigerous tuberculi especially posteriorly, and with minute ground sculpture on clypeus; labrum broadly rounded but feebly emarginate at middle. *Pronotum* one-sixth longer than wide, widest at anterior two-fifths, thence strongly narrowed to neck, feebly narrowed to base; with umbilicate punctures almost completely obsolete, making surface slightly uneven; without ground sculpture. *Elytra* sparsely, finely, and irregularly submuricately punctate, surface between smooth and flat; without ground sculpture. *Abdomen* finely, sparsely, and minutely submuricately punctate; without ground sculpture. *Male*, vertex between the eyes with a circular depression divided by a longitudinal carina which ends posteriorly in a smooth excrescence and which bears several long hairs; eighth sternite feebly broadly emarginate. *Female*, unknown. Length, 2½ mm.

Type locality.—Dominica, one-fourth mile north of the Boery River on coastal plain.

Types.—Holotype, male, U.S.N.M. No. 52407, collected by me on June 26, 1936.

Records.—The following is the only record known to me:

Dominica: (Blackwelder station 252).

Specimens examined.—I have seen only the unique type.

Remarks.—Like *personata* this is distinguished by its carinate head but differs from it in having the carina distant from the neck, between the eyes.

The type was caught flying at dusk.

XL. Genus RUGILUS Samouelle

Rugilus SAMOUELLE, 1819, p. 173.
Stilicus LEPELETIER and SERVILLE, 1825, p. 495.
Stilicosoma CASEY, 1905, p. 219.

Genotypes.—*Paederus orbiculatus* Fabricius=*Rugilus orbiculatus* (Fabricius) (original designation; also designated by Curtis, 1828). Of *Stilicus*, *Paederus orbiculatus* Fabricius=*Stilicus orbiculatus* (Fabricius) (designated by Thomson, 1861); of *Stilicosoma*, *Stilicus rufipes* Germar=*Stilicosoma rufipes* (Germar) (monobasic).

Diagnosis.—Head not emarginate posteriorly, with dense umbilicate punctures but without ground sculpture; antennae posteriorly flexile, not strongly geniculate, basal segment not much elongate, first and second not large with rest small; labrum large and broad, not much emarginate, bidenticulate at middle, with outer angles more or less toothed; fourth segment of maxillary palpus subulate; gular sutures united; neck less than one-fifth as wide as head; pronotum strongly narrowed in front but not prolonged; prosternum carinate between coxae but not much dilated under them; anterior coxae large, exserted; middle coxal cavities confluent; posterior coxae contiguous, "conical"; first and second abdominal sternites absent; seventh sternite sometimes and eighth always emarginate in male; apex of posterior tibia with a ctenidium only on inner sides.

Remarks.—In Casey's key to the Paederini the statement that this and related genera have the prosternum "greatly dilated laterally under the coxae as far as the inflexed sides of the pronotum" is misleading. Even in views from directly above or behind these lateral expansions do not reach laterally nearly as far as the hypomera, in fact are scarcely at all dilated. In my key (Blackwelder, 1939a) these genera are grouped with those not expanded as far as the hypomera.

The name *Rugilus* was validated in 1819 by Samouelle and is therefore older than *Stilicus*, which appears to have been used first in 1825 by Lepeletier and Serville.

The record of *Stilicus cribratus* Sharp from Jamaica by Gowdey, 1926, is probably a misidentification. Until the specimens can be reexamined, it must be regarded as a doubtful record.

This is a world-wide genus of considerable size. It is well represented in America, both temperate and tropical. I have examined 17 specimens from the West Indies in the British Museum, 11 in Dr. Cameron's collection, 25 from the Museum of Comparative Zoology, 12 in the United States National Museum, and 9 collected by Chapin and Blackwelder in 1935–37. These I assign to seven species, of which two seem to be new.

KEY TO WEST INDIAN SPECIES OF RUGILUS

1. Pronotum distinctly punctate only along the midline---------- **7. coprophilus**
    Pronotum coarsely and strongly umbilicately punctate throughout, except for midline---------- 2
2. Elytra coarsely punctate---------- 3
    Elytra finely or indistinctly, not densely punctate---------- **6. insularis**
3. Elytra with coarse separate punctures---------- **1. buscki**
    Elytra with dense coarse rugulose sculpture---------- 4
4. Seventh sternite of male emarginate or tuberculate---------- 5
    Seventh sternite of male unmodified---------- **2. jucundus**
5. Seventh sternite of male with simple emargination---------- 6
    Seventh sternite of male with additional modifications---------- **5. chthonus**
6. Seventh sternite of male with rounded emargination one-third as deep as wide, angles rounded---------- **3. agnatus**
    Seventh sternite of male with semicircular emargination two-thirds as deep as wide, angles not rounded---------- **4. cupreus**

1. RUGILUS BUSCKI, new species

Description.—Black, shining. *Head* scarcely wider than long, rounded behind except for a slight prominence above neck, angles entirely obliterated; eyes large, at less than their length from base; labrum with two very minute denticles at middle, lateral angles indistinctly dentate; umbilicate punctures moderately large, frequently elongate, rather dense throughout; without smooth area on vertex; without distinct ground sculpture. *Pronotum* one-sixth longer than wide, about three-fourths as wide as head; widest at anterolateral angles; sides scarcely narrowed in front, feebly arcuate posteriorly to base; with a distinct but narrow smooth median band;

umbilicate punctures a little smaller than on head, more regular, dense; without smooth areas; without ground sculpture. *Elytra* as wide as long, as wide as head; conjointly emarginate behind; punctures very coarse and deep, separated by convex intervals; without ground sculpture. *Abdomen* finely and moderately densely submuricately punctate. *Male*, unknown. *Female*, sternites not modified. Length, 4¼ mm.

Type locality.—Trinidad, ward of Montserrat.

Types.—Holotype, female, U.S.N.M. No. 52411, collected on June 29, 1903, by August Busck.

Records.—The following is the only record known to me:

Trinidad: Montserrat (Busck, in United States National Museum).

Specimens examined.—I have seen only the unique type.

Remarks.—This species is sufficiently distinguished from the other West Indian species, but I am unable to assert that it is positively distinct from the South American ones. *R. jugalis* Erichson is the only species recorded from Venezuela, but I have not seen examples of it.

I have no record of its habits.

2. RUGILUS JUCUNDUS (Cameron)

Stilicus jucundus Cameron, 1913b, p. 340.—Leng and Mutchler, 1917, p. 198.—Scheerpeltz, 1933, p. 1242.—Blackwelder, 1939a, p. 107.

Description.—Piceous, slightly rufescent, apex of elytra narrowly testaceous, more widely at sides. *Head* scarcely wider than long, rounded behind except for a slight prominence above neck, angles entirely obliterated; eyes large, at less than their length from base; labrum with two rather large denticles at middle, outer angles also produced in small teeth; umbilicate punctures moderate, seldom elongate, not very dense; without distinct smooth area on vertex; without distinct ground sculpture. *Pronotum* two-ninths longer than wide, three-fourths as wide as head; widest at anterolateral angles; sides very feebly emarginate in front, feebly arcuate posteriorly to base; with a distinct elevated smooth median band; umbilicate punctures a little smaller than on head, dense, without distinct smooth areas; without ground sculpture. *Elytra* as wide as long, one-twelfth wider than head; conjointly emarginate behind; punctures coarse and deep, separated by broad convex intervals; without ground sculpture. *Abdomen* very finely and densely submuricately punctate. *Male*, seventh sternite not modified; eighth sternite with a triangular excision deeper than wide, the angles narrowly rounded. *Female*, sternites unmodified. Length, 4 to 4¼ mm.

Type locality.—St. Vincent, Leeward side.

Types.—In the British Museum.

Records.—The following are the records known to me:

St. Vincent: (Cameron, 1913; Leng and Mutchler, 1917; British Museum; Cameron collection).

Grenada: (Cameron collection).

Specimens examined.—I have seen 12 examples (including the type) in the British Museum and 7 in Dr. Cameron's collection. One of the former was borrowed for further study.

Remarks.—Distinguished from *agnatus*, besides the characters mentioned in the key, by the seventh sternite. The above description was drawn entirely from a male borrowed from the British Museum. I find no record of its habits.

3. RUGILUS AGNATUS (Cameron)

Stilicus agnatus CAMERON, 1913b, p. 340.—LENG and MUTCHLER, 1917, p. 198.—SCHEERPELTZ, 1933, p. 1240.—BLACKWELDER, 1939a, p. 107.

Description.—Black, shining, apex of elytra narrowly testaceous, more broadly at sides. *Head* scarcely wider than long, rounded behind except for a slight prominence above neck, angles broadly rounded; eyes large, at less than their length from base; labrum finely bidenticulate at middle, lateral angles dentate; umbilicate punctures rather large especially on vertex, not often elongate; with an indefinite smooth area at center of vertex; without ground sculpture. *Pronotum* one-sixth longer than wide, three-fourths as wide as head; widest at anterolateral angles; sides in front feebly emarginate, posteriorly feebly arcuate to base; with a distinct elevated smooth middle band; umbilicate punctures large, on the disk often separated by smooth intervals but without a distinct smooth area; without ground sculpture. *Elytra* scarcely longer than wide, as wide as head; conjointly emarginate behind; punctures coarse and deep, not dense, with strong convex intervals; without ground sculpture. *Abdomen* very finely and indistinctly punctured. *Male*, seventh sternite with a rounded emargination, one-third as deep as wide, lateral angles broadly rounded; eighth sternite with an abrupt triangular excision about as deep as wide, angles very narrowly rounded. *Female*, sternites not modified. Length, 3½ to 4 mm.

Type locality.—Grenada, Balthazar.

Types.—In the British Museum.

Records.—The following is the only record known to me:

Grenada: (Cameron, 1913; Leng and Mutchler, 1917; British Museum; Cameron collection).

Specimens examined.—I have seen five examples, including the type, in the British Museum and two in the collection of Dr. Cameron. One of the former was borrowed for further study.

Remarks.—The above description of the male characters differs from Dr. Cameron's description in the structure of the seventh sternite. It was taken from one of the original series borrowed from the British Museum. The species is apparently even more distinct from *jucundus* than was previously thought.

I find no record of its habits.

4. RUGILUS CUPREUS (Cameron)

Stilicus cupreus CAMERON, 1913b, p. 341.—LENG and MUTCHLER, 1917, p. 198.—SCHEERPELTZ, 1933, p. 1241.

Description.—Bronze-black with coppery lustre, elytra brown, shining. *Head* transverse, posterior angles rounded, as wide as elytra; punctation close, umbilicate, with a small smooth space on vertex. *Pronotum* trapezoidal, scarcely longer than width at anterior angles; gradually narrowed in a straight line to base, more strongly narrowed in front; disk with smooth median line; punctation as on head. *Elytra* distinctly longer than pronotum, longer than broad; with moderately coarse and rugulose punctation. *Abdomen* closely and finely punctured. *Male*, unknown. *Female*, sternites not modified. Length, 4⅓ mm. (From Cameron.)

Type locality.—Jamaica, Newcastle district, elevation 3,000 feet.

Types.—Unique type (female) in the collection of Dr. Cameron.

Records.—The following are the records known to me:

Jamaica: (Leng and Mutchler, 1917), Newcastle (Cameron, 1913), Blue Mountains (Darlington, in M.C.Z).

Specimens examined.—I have seen only the type, which I examined briefly in Dr. Cameron's collection, and the specimen mentioned below.

Remarks.—An example taken by Dr. Darlington in 1934 close to the type locality has not been compared with the type but appears to be this species. It shows the following additional characters: Outer apical corner of elytra indefinitely paler; head scarcely measurably broader than long; eyes at about their length from base; labrum with two small median denticles, none lateral; pronotum one-tenth longer than wide, seven-eighths as wide as head; with indistinct shiny area on each side; elytra as long as broad, two-fifths wider than pronotum and two-sevenths longer; punctures indistinct and mixed with flat tuberculi, all obscured by rugulose surface; male, seventh sternite with a semicircular emargination almost as deep as wide, the angles right; eighth with a more open emargination of same size, one-half wider than deep. Length, 4 mm.

The key characters were taken from this specimen since the type is not available for further study. It is distinct by its elytral sculpture as well as by the male characters.

I find no record of its habits.

5. RUGILUS CHTHONUS, new species

Description.—Piceocastaneous, shining. *Head* one-ninth wider than long, not rounded behind although hind angles are broadly rounded; eyes large, at about their length from base; labrum with two large slender but blunt denticles, lateral angles slightly dentate; umbilicate punctures rather large, often elongate; vertex with an indefinite median smooth area; without ground sculpture except vaguely in bottom of punctures. *Pronotum* one-eighth longer than wide, three-fourths as wide as head; widest at anterior angles, sides distinctly emarginate in front, distinctly arcuate to base; with distinct elevated smooth midline, moderately large and strongly umbilicate punctures dense on either side but leaving an indefinite smooth area on each side behind middle; without ground sculpture. *Elytra* as long as wide, scarcely wider than head; conjointly emarginate behind; punctures rather coarse and deep, separated by convex intervals; without ground sculpture. *Abdomen* with dense fine punctures much obscured by dense and rather indistinct ground sculpture. *Male*, unknown. *Female*, eighth sternite prominently rounded. Length 5½ mm.

Type locality.—Puerto Rico, 5 miles north of Villalba.

Types.—Holotype, female, U.S.N.M. No. 52410, collected by me on October 12, 1935.

Records.—The following are the records known to me:

Hispaniola: Haiti, Furcy (Mann, in M.C.Z.), LaVisité (Darlington, in M.C.Z. and U.S.N.M.), Desbarriere (Darlington, in M.C.Z. and U.S.N.M.).
Puerto Rico: Villalba (Blackwelder station 64).

Specimens examined.—I have seen only the type and five examples from the Museum of Comparative Zoology.

Remarks.—This species is distinct from all others now known from the West Indies by the irregular smooth spaces of the pronotum and by its size.

As the specimens from Hispaniola differ slightly from the type, they are not made paratypes. They have the punctures of the head less united and not appearing to be arranged in arcs; they do not have the pronotal punctures near the midline posteriorly quite so crowded; and they have the lateral smooth areas smaller, scarcely more than enlarged intervals.

The type was collected by sifting dead leaves and trash in a damp gully. All examples were taken at elevations of 3,000 to 7,000 feet.

6. RUGILUS INSULARIS (Cameron)

Stilicus insularis Cameron, 1913b, p. 341.—Leng and Mutchler, 1917, p. 198.—Scheerpeltz, 1933, p. 1242.—Blackwelder, 1939a, p. 107.,

Description.—Black, shining, elytra sometimes narrowly and indistinctly paler along apical margin. *Head* one-seventh wider than long, not rounded behind although posterior angles are rounded; eyes large, at about their length from base; labrum minutely bidenticulate, indistinctly dentate at outer angles; umbilicate punctures moderate, sometimes elongate in front; vertex with a smooth median area; without ground sculpture. *Pronotum* as wide as long, five-sixths as wide as head; widest at anterior angles, sides distinctly emarginate in front, distinctly arcuate posteriorly; with a distinctly elevated smooth middle band, umbilicate punctures dense, with intervals wider and shiny just behind middle on each side but not forming a distinct smooth area; without ground sculpture. *Elytra* scarcely wider than long, a trifle wider than head; conjointly emarginate behind; punctures not coarse but abrupt and elongate, the intervals rather coriaceous. *Abdomen* moderately sparsely but very finely and submuricately punctured. *Male*, seventh sternite flattened at center between two small tubercle-like prominences; eighth with a broadly rounded emargination half as deep as wide but very abrupt. *Female*, eighth sternite rounded. Length, 4 to 4½ mm.

Type locality.—Jamaica, Chester Vale district.

Types.—Unique type in the collection of Dr. Cameron.

Records.—The following are the records known to me:

Jamaica: (Leng and Mutchler, 1917), Chester Vale (Cameron, 1913), Spanish Town (Blackwelder station 377), Santa Cruz (Blackwelder station 421), Milk River (Blackwelder station 415), Trinityville (Blackwelder station 428), Blue Mountains (Darlington, in M.C.Z. and U.S.N.M.), Kingston (Darlington, in M.C.Z.).

Specimens examined.—I have seen the unique type in Dr. Cameron's collection, 11 specimens from the Museum of Comparative Zoology, and 8 examples collected by Chapin and Blackwelder in February 1937.

Remarks.—This species is described from specimens I compared with the type. It is chiefly distinguished by its elytral punctation and male characters.

My specimens were caught flying at dusk.

7. RUGILUS COPROPHILUS (Bierig)

Stilicus coprophilus Bierig, 1936, p. 138, pl. 6, figs. 3, 4.

Description.—Rufopiceous, apex of elytra narrowly testaceous, more widely at sides than at suture. *Head* one-tenth wider than long, rounded behind; eyes large, at less than their length from base; labrum scarcely emarginate, bidenticulate, with a prominent median ridge on upper surface, lateral angles slightly dentate; with rather dense and moderately coarse umbilicate punctures; vertex with an indefinite median smooth area; without distinct ground sculpture. *Pronotum* one-eighth longer than wide, two-thirds as wide as head; widest at anterior angles, sides not distinctly emarginate in front, distinctly arcuate posteriorly; with obsolescent umbilicate punctures distinct along middle smooth space but scarcely discernible toward sides; without ground sculpture. *Elytra* as long as wide, as wide as head, conjointly emarginate behind; punctures rather feeble and sparse, sometimes somewhat muricate. *Abdomen* sparsely and very finely submuricately punctured. *Male*, seventh sternite slightly flattened apically at middle; eighth with a rounded emargination half as deep as wide. *Female*, eighth sternite rather strongly and prominently rounded. Length, 3 to 3½ mm.

Type locality.—"Cuba; probablemente en toda la isla y durante todo el ano. Isla de Pinos."

Types.—In the collection of Alexander Bierig. One "cotype" is in the United States National Museum (No. 52724).

Records.—The following are the records known to me:

Cuba: (Bierig, 1936), Rangel, Sierra del Rosario (Bierig, in U.S.N.M.), Cayamas (Schwarz, in U.S.N.M.), Soledad (Darlington, in M.C.Z. and U.S.N.M.).
Isle of Pines: (Bierig, 1936).

Specimens examined.—In addition to the "cotype" I have seen 11 examples in the United States National Museum and 8 from the Museum of Comparative Zoology.

Remarks.—The above description is taken entirely from the specimens in the United States National Museum. The species is distinguished from all others in the West Indies by its obsolete pronotal punctation.

I find no record of its habits.

XLI. Genus SCOPOBIUM Blackwelder

Scopobium Blackwelder, 1939a, pp. 97, 107, 121.

Genotype.—*Ophiomedon anthracinum* Cameron=*Scopobium anthracinum* (Cameron) (original designation).

Diagnosis.—Punctures dense and umbilicate; antennae normal; labrum broadly semicircularly emarginate; fourth segment of maxillary palpus acicular, longer than greatest width of third; gular sutures very approximate throughout their length; neck about one-half as wide as head; prosternum not dilated under coxae; hypomera prolonged in a lobe partly behind the coxae; anterior coxal cavities entirely open behind; front coxae very large, exserted; middle coxal cavities confluent; posterior coxae contiguous, "conical"; first and second abdominal sternites absent, third strongly carinate at middle of base; basal half of front tibia with a concavity lined with diagonal ctenidia; front tarsi broadly expanded; apex of posterior tibia with a ctenidium on each side.

Remarks.—This is a very distinct genus, which combines certain features of *Aderocharis* and the Domene-Lathrobium series. It is at present represented by only one species.

1. SCOPOBIUM ANTHRACINUM (Cameron)

Ophiomedon anthracinum CAMERON, 1913b, p. 344.—LENG and MUTCHLER, 1917, p. 198.—SCHEERPELTZ, 1933, p. 1247.—BLACKWELDER, 1939a, pp. 107, 121.
Medon anthracinum (Cameron) BLACKWELDER, 1939a, p. 107.
Scopobium anthracinum (Cameron) BLACKWELDER, 1939a, pp. 107, 121.

Description.—Piceorufous. *Head* quadrate, not narrowed behind; eyes at nearly twice their length from base; with very dense umbilicate punctures; labrum with a large semicircular emargination. *Pronotum* as broad as long, scarcely narrowed posteriorly, the basal angles somewhat rounded; with a distinct impressed midline posteriorly; with dense umbilicate punctures a little smaller than those on head. *Elytra* two-sevenths wider than long, longer than pronotum; with moderately coarse punctures separated by less than their diameter; intervals with very vague traces of ground sculpture. *Abdomen* with each segment strongly impressed at base; with fine but feeble submuricate punctures and traces of ground sculpture. *Male*, seventh sternite with a semicircular emargination bordered by two ridges which form curved spatulate processes projecting posteriorly; eighth sternite with a deep emargination parallel-sided near apex and about as broad posteriorly as long. *Female*, seventh sternite with a median sinuation; eighth sternite rounded. Length, 6 mm.

Type locality.—Grenada, Chantilly Estate.

Types.—In the British Museum.

Records.—The following are the records known to me:

St. Lucia: (Blackwelder station 209A).
St. Vincent: (Cameron, 1913; Leng and Mutchler, 1917; British Museum).
Grenada: (British Museum).

Specimens examined.—I have seen four examples in the British Museum and one collected by me in March 1936.

Remarks.—This is a very distinct species, which I made the type of a new genus in a previous paper on the Paederini. It can be recognized readily by the large semicircular emargination of the labrum.

My example was taken from under stones along a stream.

XLII. Genus LATHROBIUM Gravenhorst

Lathrobium GRAVENHORST, 1802, p. 51.
Latrobium DAHL, 1823, p. 16 (misspelling).
Lathobium LECONTE, 1859, p. 572 (misspelling).
Centrocnemis JOSEPH, 1868, p. 365.
Subgenus *Tetartopeus* CZWALINA, 1888, p. 349.
Subgenus *Lathrobium* s. str.
    Litolathra CASEY, 1905, p. 71.
Subgenus *Lathrolepta* CASEY, 1905, p. 72.
Subgenus *Deratopeus* CASEY, 1905, p. 73.
Subgenus *Ablctobium* CASEY, 1905, p. 70.
Subgenus *Apteralium* CASEY, 1905, p. 70.
Subgenus *Lathrobiopsis* CASEY, 1905, p. 72.
Subgenus *Lathrobioma* CASEY, 1905, p. 72.

Genotypes.—*Staphylinus elongatus* Linnaeus=*Lathrobium elongatum* (Linnaeus) (designated by Latreille, 1810; since this is a valid designation, that of des Gozis in 1886 of *multipunctum* is invalid). Of *Centrocnemis*, *Lathrobium* (*Centrocnemis*) *krniense* Joseph (monobasic); of *Litolathra*, *L. suspecta* Casey (designated by Blackwelder, 1939); of *Lathrolepta*, *Lathrobium debilis* LeConte=*Lathrolepta debilis* (LeConte) (monobasic); of *Deratopeus*, *D. parvipennis* Casey (designated by Blackwelder, 1939); of *Tetartopeus*, *Lathrobium terminatum* Gravenhorst=*Lathrobium* (*Tetartopeus*) *terminatum* Gravenhorst (designated by Blackwelder, 1939); of *Abletobium*, *A. pallescens* Casey (monobasic); of *Apteralium*, *Lathrobium brevipenne* LeConte=*Apteralium brevipenne* (LeConte) (designated by Blackwelder, 1939); of *Lathrobiopsis*, *L. texana* Casey (monobasic); of *Lathrobioma*, *Lathrobium tenue* LeConte=*Lathrobioma tenuis* (LeConte) (designated by Blackwelder, 1939).

Diagnosis.—Head with punctures not very dense, not coarsely umbilicate; eyes normal; antennae posteriorly flexile, not strongly geniculate, basal segment not very elongate, outer segments normal; labrum bilobed or triangularly emarginate; fourth segment of maxillary palpus small, acute, glabrous, not compressed, shorter than greatest width of third; neck over one-fourth as wide as head; prosternum not dilated under the front coxae as far as the hypomera; anterior coxal cavities entirely open behind; elytra without a fold above side margin; first and second abdominal sternites absent; apex of posterior tibia with a distinct ctenidium on both sides.

Remarks.—This genus is distinguished from *Lobrathium* by the lack of a lateral fold on the elytron. It is a large genus but is represented in the West Indies by only four species, of which three appear to be new. I have seen only five examples.

KEY TO WEST INDIAN SPECIES OF LATHROBIUM

1. Punctures on disk of pronotum three times as large as those on head. 2. **canoaensis**
   Punctures of pronotum not much larger than those on head---------- 2
2. Elytra shorter than pronotum---------------------------------- 3
   Elytra longer than pronotum-------------------------------- 1. **trinitatum**
3. Basal angles of head distinct------------------------------ 4. **subterraneum**
   Basal angles of head broadly rounded------------------------ 3. **dominicanum**

1. LATHROBIUM TRINITATUM, new species

Description.—Testaceous, head and pronotum more or less rufescent. *Head* truncate behind, with hind angles narrowly rounded; with rather feeble punctures not very dense except at base; without ground sculpture except near base; gular sutures distinctly separated along middle and equally divergent to base and apex. *Pronotum* with irregular median smooth area not outlined by a distinct series of punctures; the moderate punctures evenly scattered over the rest of the surface, usually separated by less than their diameter; without ground sculpture. *Elytra* conjointly longer than wide, wider than pronotum; punctured similarly to the pronotum, a little more sparsely on the disk near base; with a vague suggestion of ground sculpture. *Hind tarsus* with first segment scarcely longer than second. *Male*, unknown. *Female*, apical sternites not modified. Length, 6½ mm.

Type locality.—Trinidad, Cedros, on southwest peninsula.

Types.—Holotype, female, in Museum of Comparative Zoology, collected on May 4, 1929, by Dr. P. J. Darlington.

Records.—The following is the only record known to me:

Trinidad: Cedros (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the unique type.

Remarks.—This species belongs in the subgenus *Lathrobium* s.str. It is the only species known from the southern islands and is a normal appearing *Lathrobium* as distinguished from the subterranean *L. dominicanum* and *L. subterraneum*.

I have received no record of its habits.

2. LATHROBIUM CANOAENSIS (Bierig)

Tetartopeus canoaensis BIERIG, 1934f, p. 325, fig. 2.

Description.—Black, elytral suture and humeral edge obscure castaneous, outer apical angles irregularly luteous. *Head* as wide as long, sides completely rounded into base; eyes moderate, separated from base by about one-half more than their length; punctures varying from very small to very large, usually umbilicate; with distinct ground sculpture only basally. *Pronotum* nearly one-fifth longer than wide; sides nearly straight and feebly converging posteriorly, the angles broadly rounded; with very narrow and irregular smooth midline, feebly channelled posteriorly; punctures on the disk umbilicate and three times as large as many of those on head, not arranged in series, usually separated by less than their diameter. *Elytra* normal, with punctures half as large as those on pronotum, without distinct ground sculpture. *Hind tarsus* with first segment shorter than second. *Male*, fifth, sixth, and seventh sternites depressed, eighth with a narrow rounded emargination one-half deeper than wide. *Female*, sternites not specially modified. Length, 7½ mm.

Type locality.—Cuba, Laguna La Canoa, province of Pinar del Rio.

Types.—Unique holotype, female, in collection of Alexander Bierig.

Records.—The following are the records known to me:

Cuba: Laguna La Canoa (Bierig, 1934).
North America: FLORIDA (Bierig, in U.S.N.M.).

Specimens examined.—I have seen only the example mentioned below.

Remarks.—One male specimen from Florida was sent to the National Museum as a "cotype" of *canoaensis* (U.S.N.M. No. 52726). It seems to agree with the description in most points but cannot possibly be any kind of primary type because the original description specifically states that only a single specimen was known. I have not been able to identify this specimen (or species) with any of the described North American species.

The above description was drawn from the Florida specimen.

The type was found in a crevice in mud.

3. LATHROBIUM DOMINICANUM, new species

Description.—Piceous, often rufescent at borders of sclerites. *Head* with hind angles broadly rounded; with moderate punctures sparse on the disk and seldom separated by less than their diameter laterally; without ground sculpture; gular sutures well separated, diverging from near the front. *Pronotum* with median smooth area outlined by two regular series of about fourteen punctures, the series sometimes interrupted near base by duplication of punctures; laterally with an arcuate series and a few scattered punctures; without ground sculpture. *Elytra* very short, appressed; with indistinct and irregular submuricate punctures not regularly serial; without distinct ground sculpture. *Hind tarsus* with first segment scarcely longer than second. *Male*, seventh sternite unmodified; eighth with a small triangular emargination, twice as wide as deep, with the angles rounded and apex acute. *Female*, unknown. Length, 6 mm.

Type locality.—Dominican Republic, Loma de la Peña, northwest of Constanza.

Types.—Holotype, male, Museum of Comparative Zoology, and paratype, male, United States National Museum (No. 52497); collected in August 1938 by Dr. P. J. Darlington at elevation of 5,000 feet.

Records.—The following is the only record known to me:

Hispaniola: DOMINICAN REPUBLIC, Loma de la Peña (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the two types.

Remarks.—This is one of the subterranean type of paederid so distinct as a group and among themselves as species. It is readily distinguishable by the characters given in the key.

It belongs in the subgenus *Apteralium*, although differing considerably in facies from the type species.

I have received no records of its habits except that it was taken at about 5,000 feet elevation, probably in ground cover.

4. LATHROBIUM SUBTERRANEUM, new species

Description.—Piceorufous. *Head* with hind angles narrowly rounded; with moderately coarse punctures sparse on the disk and often separated by less than their diameter laterally; without ground sculpture; gular sutures distinctly separated in front, widely divergent behind. *Pronotum* with median area outlined by two regular series of about 18 very fine punctures; laterally with an arcuate series and a few scattered punctures; without ground sculpture. *Elytra* very short, appressed; with indistinct and irregular submuricate punctures not serial; without distinct ground sculpture though the punctures are somewhat obscured by the uneven surface. *Hind tarsus* with the first segment distinctly longer than the second. *Male*, unknown. *Female*, apical sternites not modified. Length, 6 mm.

Type locality.—Puerto Rico, El Yunque, 3,000 feet elevation.

Types.—Holotype, female, in the Museum of Comparative Zoology, collected in May 1938 by Dr. P. J. Darlington.

Records.—The following is the only record known to me:

Puerto Rico: El Yunque (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the holotype.

Remarks.—This is a very unusually slender species of the subterranean type. It is very distinct by the characters given in the key and belongs in the subgenus *Apteralium*, where it is similar to *dominicanum* but different from the type species, *brevipennis*. It is the only specimen of this genus so far found in Puerto Rico.

It was found at 3,000 feet elevation, probably under ground cover.

XLIII. Genus LOBRATHIUM Mulsant and Rey

Lobrathium MULSANT and REY, 1878, p. 78.
Bathrolium GOZIS, 1886, p. 14.
Lathrobiella CASEY, 1905, pp. 75, 133.
Lathrotaxis CASEY, 1905, pp. 74, 122.
Subgenus *Platydomene* GANGLBAUER, 1895, pp. 504, 507.
Subgenus *Eulathrobium* CASEY, 1905, pp. 73, 115.
    Lathrotropis CASEY, 1905, pp. 74, 115.
Subgenus *Pseudolathra* CASEY, 1905, pp. 74, 129.
    Linolathra CASEY, 1905, pp. 75, 131.
    Microlathra CASEY, 1905, pp. 75, 142.
    Paralathra CASEY, 1905, pp. 75, 130.

Genotypes.—*Lathrobium multipunctum* Gravenhorst=*Lobrathium multipunctum* (Gravenhorst) (designated by Blackwelder, 1939). Of *Lathrobiella*, *Lathrobium collare* Erichson=*Lathrobiella collaris* (Erichson) (designated by Blackwelder, 1939); of *Bathrolium*, *Staphylinus punctatus* Fourcroy=*Lathrobium punctatum* (Fourcroy)=*Bathrolium punctatum* (Fourcroy) (implied by Gozis, 1886);

of *Lathrotaxis*, *Lathrobium longiuscula* Gravenhorst=*Lathrotaxis longiuscula* (Gravenhorst) (designated by Blackwelder, 1939); of *Platydomene*, *Lathrobium bicolor* Erichson=*Platydomene bicolor* (Erichson) (designated by Blackwelder, 1939); of *Eulathrobium*. *Lathrobium grande* LeConte=*Eulathrobium grande* (LeConte) (monobasic); of *Lathrotropis*, *Lathrobium jacobinum* LeConte=*Lathrotropis jacobina* (LeConte) (designated by Blackwelder, 1939); of *Pseudolathra*, *Lathrobium anale* LeConte=*Pseudolathra analis* (LeConte) (designated by Blackwelder, 1939); of *Linolathra*, *L. filitarsis* Casey (designated by Blackwelder, 1939); of *Microlathra*, *Lathrobium pallidula* LeConte=*Microlathra pallidula* (LeConte) (designated by Blackwelder, 1939); of *Paralathra*, *P. filicornis* Casey (monobasic).

Diagnosis.—Body elongate, parallel, feebly constricted; integuments moderately sparsely punctate, not umbilicate; eyes present and normal; antennae posteriorly flexile, not strongly geniculate, basal segment not very elongate, first and second not much larger than rest; labrum bilobed; fourth segment of maxillary palpus acicular, shorter than the greatest width of the third segment; gular sutures separate, variable in position; neck fully one-half as broad as head; prosternum not dilated under coxae; hypomera feebly lobed behind the coxae; anterior coxal cavities open behind; front coxae large, exserted; elytra with a longitudinal fold above side margin; middle coxal cavities confluent; posterior coxae contiguous, "conical"; first and second abdominal sternites absent; seventh sternite of male sometimes modified, eighth always emarginate; basal half of anterior tibia with a concavity lined with diagonal ctenidia; apex of posterior tibia with a distinct ctenidium along both inner and outer edges.

Remarks.—This genus has generally been considered a subgenus of *Lathrobium*. It was raised to the rank of genus, distinguished from *Lathrobium* by the presence of the elytral fold and containing several subgenera (see Blackwelder, 1939). It includes most of the previously described members of the Lathrobia from the West Indies.

I have seen 87 examples of this genus from the West Indies. These are assigned to ten species, of which five are new.

KEY TO WEST INDIAN SPECIES OF LOBRATHIUM

1. Elytra normal, not shorter than pronotum ---------- 2
Elytra reduced, distinctly shorter than pronotum ---------- 8
2. Median space of pronotum outlined by two definite series of punctures (sometimes irregular) ---------- 4
Median space outlined at most by bands of punctures not arranged in single series ---------- 3
3. Seventh sternite of male longitudinally sulcate; piceous, with apex of elytra rufescent ---------- 1. discolor
Seventh sternite of male not sulcate; black, with elytra rufous ---------- 2. pectorale

4. Gular sutures most approximate along middle ------------------- 7. odium
Gular sutures diverging from before middle ---------------------------- 5
5. Elytra with two or three discal series of punctures ---------------------- 6
Elytra with four or five discal series of punctures -------------- 3. rubidum
6. Seventh sternite of male with angles of emargination acutely toothed; outer apical third of elytra paler --------------------------------- 6. darlingtoni
Seventh sternite of male not toothed -- 7
7. Piceous or rufopiceous, elytral apex indefinitely paler ------ 5. margipallens
Rufous, elytra picescent with apical half or two-fifths testaceous. 4. nitidum
8. Pronotum with two regular series of punctures ------------------------ 9
Pronotum without distinct single series -------------------- 10. pluviosum
9. Dorsal series with 6 punctures --------------------------- 9. borinquense
Dorsal series with about 12 punctures ---------------------- 8. reductum

1. LOBRATHIUM DISCOLOR (Erichson)

Lathrobium discolor Erichson, 1840, p. 598.—Bernhauer and Schubert, 1912, p. 258.

Description.—Nigropiceous to rufous (immature), apical two-thirds of elytra generally rufopiceous (always more rufous than remainder). *Head* with sparse moderate punctures separated by one to three times their diameter; without ground sculpture; gular sutures moderately widely separated, parallel throughout. *Pronotum* with sparse moderate punctures; median smooth stripe irregular, not bordered by a regular series of punctures; lateral punctures not more than partly in series; without ground sculpture. *Elytra* with moderately coarse but rather shallow and indefinite punctures in irregular series, one sutural, about four discal, and two posthumeral; without distinct ground sculpture. *Hind tarsus* with first segment slightly shorter than second. *Male*, seventh sternite with a longitudinal concavity in apical two-thirds, impunctate except at sides, the edges abrupt and elevated, the segment vaguely emarginate at center; eighth sternite with an ogival emargination two and one-half times as long as wide, the apex narrowly acute, the angles not rounded; sixth and even fifth sternites sometimes with a trace of median impression. *Female*, sternites not modified. Length, 7 to 8 mm.

Type locality.—"America meridionalis ins. St. Thomae."

Types.—Either in the Hope Museum, Oxford, or the Zoologische Museum, Berlin.

Records.—The following are the records known to me:

Cuba: Soledad (Darlington, in M.C.Z. and U.S.N.M.), Aguadores, in Oriente (Darlington, in M.C.Z.).

Hispaniola: Haiti, Étang Lachaux (Darlington, in M.C.Z.); Dominican Republic, Barahona (Darlington, in M.C.Z.), Sanchez (Darlington, in M.C.Z. and U.S.N.M.), Puerto Plata (Darlington, in M.C.Z.).

St. Thomas: (Erichson, 1840).

[South America: (Bernhauer and Schubert, 1912, by error).]

Specimens examined.—I have seen 23 examples collected by Dr. Darlington, of which 8 are now deposited in the United States National Museum.

Remarks.—The male genitalia leave little doubt of the identity of this species, only *odium* being at all similar. That species is distinguished only by its single series of punctures bordering the pronotal median space, whereas in *discolor* the space is irregular and marked by bands of punctures not in a single series. The two species occur in the same part of Cuba, but I find no intergrades in either series. They both belong in the subgenus *Lobrathium* s. str.

I find no record of the habits of this species.

2. LOBRATHIUM PECTORALE (Erichson)

Lathrobium pectorale ERICHSON, 1840, p. 596.—BERNHAUER and SCHUBERT, 1912, p. 265.—LENG and MUTCHLER, 1914, p. 405.

Description.—Nigropiceous, elytra rufous. *Head* more densely punctate at sides, smooth in front, punctures notably sparse. *Pronotum* densely punctate at sides, median longitudinal space smooth. *Elytra* more densely but less strongly punctate, subserially in front. *Male*, seventh sternite broadly feebly emarginate; eighth sternite deeply triangularly excised. *Female*, unknown. Length, 6 mm. (From Erichson.)

Type locality.—"Americae meridionalis ins. St. Thomae."

Types.—Either in the Hope Museum, Oxford, or the Zoologische Museum, Berlin.

Records.—The following is the only record known to me:

St. Thomas: (Erichson, 1840; Bernhauer and Schubert, 1912; Leng and Mutchler, 1914).

Specimens examined.—I have seen no example of this species.

Remarks.—The characters given above seem to be sufficient to distinguish this species from any known to me. The male characters distinguish it from *odium*. It is not possible to determine from the original description to which subgenus it belongs.

I find no record of its habits.

3. LOBRATHIUM RUBIDUM (Fauvel)

Lithocharis rubida FAUVEL, 1863, p. 436.—BLACKWELDER, 1939a, p. 110.

Lathrobium rubidum (Fauvel) VILLADA, 1901, p. 31.—BERNHAUER and SCHUBERT, 1912, p. 266.—LENG and MUTCHLER, 1914, p. 405.—BLACKWELDER, 1939a, p. 110. (Not Casey, 1905.)

Lobrathium rubidum (Fauvel) BLACKWELDER, 1939a, p. 110.

Description.—Rufous to rufotestaceous, abdomen generally darker, elytra sometimes infuscate basally. *Head* with large and smaller punctures separated by one to three times their diameter; without ground sculpture; gular sutures rather widely separated, most approximate before middle, rather widely diverging posteriorly. *Pronotum* with median smooth space outlined by two irregular series of about 12 punctures, generally separated by about their diameter, between these and margin are scattered punctures not arranged in series but extending throughout the length; without ground sculpture. *Elytra* with rather feeble punctures in series, one sutural, four discal, and several indefinite ones posthumeral; without ground sculpture. *Hind tarsus* with first segment very little longer than second. *Male*, seventh sternite unmodified, eighth with a triangular emargination one-half wider than deep, with apex narrowly rounded and lateral angles broadly rounded. *Female*, eighth sternite slightly prominent at middle. Length, 4 to 4½ mm.

Type locality.—Cuba.

Types.—Presumably in collection of Blanche Rancin, Caën, France.

Records.—The following are the records known to me:

Cuba: (Fauvel, 1863: Bernhauer and Schubert, 1912; Leng and Mutchler, 1914), Cayamas (Schwarz, in U.S.N.M.), Soledad (Darlington, in M.C.Z.).

Jamaica: Kingston (Darlington, in M.C.Z.).

Hispaniola: DOMINICAN REPUBLIC, Sánchez (Darlington, in M.C.Z. and U.S.N.M.), Barahona (Darlington, in M.C.Z.).

Specimens examined.—I have seen four examples in the United States National Museum and five collected by Dr. Darlington.

Remarks.—This species is distinguished by its large number of discal series of punctures on the elytra, by the arrangement of the punctures on the pronotum, and by the male characters. The description was drawn from the examples in the United States National Museum. It probably belongs in the subgenus *Pseudolathra.*

I find no record of its habits.

4. LOBRATHIUM NITIDUM (Erichson)

Lathrobium nitidum ERICHSON, 1840, p. 599.—LYNCH, 1884, p. 239.—BERNHAUER and SCHUBERT, 1912, p. 264.—SCHEERPELTZ, 1933, p. 1280.—BLACKWELDER, 1939a, p. 110.

Lobrathium nitidum (Erichson) BLACKWELDER, 1939a, p. 110.

Description.—Rufous or rufopiceous, elytra piceous with apical third testaceous. *Head* with moderate punctures separated by one-half to two times their diameter; without ground sculpture; gular sutures rather widely separated, most approximate in front, rather widely diverging posteriorly. *Pronotum* with median smooth space outlined by two rather straight series of about ten punctures, not evenly spaced; laterally with an arcuate series of about seven punctures and a few between this and margin, but none between the two series or posteriorly; without ground sculpture. *Elytra* with very feeble punctures in series, one sutural, two discal, and one posthumeral; without ground sculpture. *Hind tarsus* with first segment a little longer than second. *Male*, seventh sternite prominently rounded but truncated in the middle third by a broad rounded emargination, the angles rounded; eighth sternite with a triangular emargination four times as wide as deep and preceded by a triangular depression. *Female*, apical sternites feebly rounded. Length, 3½ mm.

Type locality.—"Columbia."

Types.—Either in the Hope Museum, Oxford, or the Zoologische Museum, Berlin.

Records.—The following are the records known to me:

Cuba: Aguadores in Oriente (Darlington, in M.C.Z. and U.S.N.M.).
Hispaniola: HAITI, Port-au-Prince (Darlington, in M.C.Z.), Ennery (Darlington, in M.C.Z.); DOMINICAN REPUBLIC, Villa Altagracia (Darlington, in M.C.Z.), Puerto Plata (Darlington, in U.S.N.M.).
St. Croix: (Blackwelder station 344).
St. Lucia: (H. E. Box, as Blackwelder station 444G).

Specimens examined.—I have seen the two specimens collected by me in 1935–37 and nine collected by Dr. Darlington.

Remarks.—The description is drawn from the two specimens now in the United States National Museum. These agree with the original description of *nitidum* but are distinguished from other species by the male characters. The color arrangement of the elytra will at once distinguish it among the West Indian species. It belongs in the subgenus *Pseudolathra.*

My specimens were caught flying at dusk.

5. LOBRATHIUM MARGIPALLENS (DuVal)

Lathrobium margipallens DUVAL, 1857, p. 41.—BERNHAUER, and SCHUBERT, 1912, p. 263.—LENG and MUTCHLER, 1914, p. 405.—BLACKWELDER, 1939a, p. 110.
Lathrobium marginipallens CHEVROLAT and FAUVEL, 1863, p. 435 (misspelling).
Lathrobium insulare CAMERON, 1922, p. 113.—SCHEERPELTZ, 1933, p. 1277.
Lobrathium margipallens (DuVal) BLACKWELDER, 1939a, p. 110.

Description.—Piceous, more or less rufescent especially in front, elytra with apex narrowly and indefinitely paler. *Head* with sparse moderate punctures separated by one to three times their diameter; without ground sculpture; gular sutures moderately separated, most approximate before middle, rather widely divergent posteriorly. *Pronotum* very sparsely punctate; middle smooth space outlined by two regular series of punctures, varying from 7 to 10 punctures in each series; with a sigmoid lateral series of 7 to 9 punctures, and a few between this and margin; without ground sculpture. *Elytra* with rather feeble punctures in series, one sutural, two discal, and one posthumeral; without ground sculpture. *Hind tarsus* with first segment longer than second. *Male*, seventh sternite slightly produced in median three-fifths, the process truncate and with a feeble rounded emargination at middle; eighth sternite with a rounded emargination three times as wide as deep, the outer angles rounded and somewhat produced, the surface of the segment behind the emargination forming a triangular concavity, which is impunctate but with the usual ground sculpture. *Female*, seventh sternite not modified; eighth somewhat truncate. Length, 3½ to 4 mm.

Type locality.—Cuba. Of *insulare*, Jamaica.

Types.—The type should be in the British Museum (from Guerin-Méneville via the Sharp collection), but I did not find it there. Of *insulare*, in the collection of Dr. M. Cameron.

Records.—The following are the records known to me:

Cuba: (Duval, 1857; Bernhauer and Schubert, 1912; Leng and Mutchler, 1914; British Museum), Cayamas (Schwarz, in U.S.N.M.), Soledad (Darlington, in M.C.Z. and U.S.N.M.), Maisi in Oriente (Darlington, in M.C.Z. and U.S.N.M.).

Jamaica: (Cameron, 1922; Cameron collection, as *insulare*), Black River (Blackwelder station 416), Santa Cruz (Blackwelder station 421).

Specimens examined.—I have seen one specimen in the British Museum, two in the United States National Museum, seven collected by Dr. P. J. Darlington, and three collected by me in 1935-37.

Remarks.—I am unable to distinguish the Jamaican from the Cuban examples. The description was drawn from a Cuban example in the United States National Museum. This species belongs in the subgenus *Pseudolathra*.

My specimens were taken flying at dusk.

6. LOBRATHIUM DARLINGTONI, new species

Description.—Rufous, head rufopiceous or picescent, elytra piceous with outer apical third rufotestaceous. *Head* with sparse moderate punctures separated by one to three times their diameter; without ground sculpture; gular sutures moderately separated, most approximate near apex. *Pronotum* very sparsely punctate, median smooth space outlined by two regular series of 7 to 10 punctures; lateral punctures not in series; without ground sculpture. *Elytra* with moderately coarse punctures in series, 1 sutural, 2 discal, and 1 posthumeral; without ground sculpture. *Hind tarsus* with first segment longer than second. *Male*, seventh sternite with a semicircular emargination in median third, the angles produced into short but acute processes; eighth sternite with a rounded emargination three times as wide as deep, the outer angles rounded and somewhat produced, the surface of the segment behind the emargination forming a triangular concavity which is impunctate but with the usual ground sculpture. *Female*, sternites not emarginate. Length, 4½ mm.

Type locality.—Trinidad, St. Augustine.

Types.—Holotype, male, and two paratypes, male and female, in the Museum of Comparative Zoology; three paratypes, male, in the United

States National Museum (No. 52502); collected in April 1929 by Dr. P. J. Darlington (and on May 9, 1935, by Dr. N. A. Weber).

Records.—The following are the records known to me:

Trinidad: St. Augustine (Darlington and Weber, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the six types.

Remarks.—This species is very distinct by the characters of the seventh sternite of the male. It can usually be distinguished also by its coloration. It belongs in the subgenus *Pseudolathra.*

One specimen was collected at light.

7. LOBRATHIUM ODIUM, new species

Description.—Piceous or rufopiceous, with elytra rufous at least in apical third. *Head* with rather large punctures separated by one to three times their diameter; without ground sculpture except in region about the neck; gular sutures moderately widely separated, nearly parallel, diverging only near base. *Pronotum* with median smooth space outlined by two rather irregular series of about 12 punctures, the series interrupted near base and apex by duplication of punctures; laterally with scattered punctures of various sizes; without ground sculpture. *Elytra* with feeble punctures in impressed longitudinal series, 1 sutural, 4 discal, and an indefinite band posthumeral; without ground sculpture. *Hind tarsus* with first segment a little longer than second. *Male*, seventh sternite with an abrupt and deep longitudinal concavity in apical two-thirds, the bottom impunctate, the apical edge slightly emarginate; eighth sternite with an abrupt emargination twice as deep as wide, the sides feebly concave, the angle acute. *Female*, seventh sternite unmodified, eighth rounded. Length, 6 mm.

Type locality.—Cuba, Cayamas, 15 miles west-northwest of Cienfuegos, province of Santa Clara.

Types.—Holotype, male, and seven paratypes, U.S.N.M. No. 52423, collected by E. A. Schwarz. One paratype has been deposited in the British Museum.

Records.—The following is the only record known to me:

Cuba: Cayamas (Schwarz, in U.S.N.M.).

Specimens examined.—I have seen only the nine types.

Remarks.—This species is distinct from all others from the West Indies except *discolor* by the male characters. It is very similar to *discolor* but seems to differ constantly in the arrangement of the color of the elytra. This is not an important character, but it seems best to keep these separate until examples of *discolor* from the Virgin Islands can be compared directly with it. *L. odium* belongs in the subgenus *Lobrathium* s. str.

I have no record of its habits.

8. LOBRATHIUM REDUCTUM, new species

Description.—Piceous, the head generally black, base of elytra narrowly rufescent. *Head* with rather coarse and sparse punctures; sides behind eyes arcuate and rounded into base without angles; without ground sculpture; gular sutures straight, moderately separated in front and diverging to base. *Pronotum* with median smooth space outlined by two regular series of 12 to 14 punctures, the series sometimes interrupted by a misplaced or doubled puncture; with a few scattered punctures laterally; without ground sculpture. *Elytra* very small, appressed; with fine and somewhat indistinct submuricate punctures not in series; surface uneven but without distinct ground sculpture. *Hind tarsus* with first segment not noticeably longer than second. *Male*, seventh sternite unmodified; eighth with a very small triangular incision, the angles rounded, the apex acute. *Female*, sternites unmodified. Length, 6 to 7 mm.

Type locality.—Dominican Republic, Valle Nuevo, southeast of Constanza, elevation about 7,000 feet.

Types.—Holotype, male, and five paratypes, in Museum of Comparative Zoology; four paratypes in the United States National Museum (No. 52498); collected in August 1938 by Dr. P. J. Darlington.

Records.—The following is the only record known to me:

Hispaniola: DOMINICAN REPUBLIC, Valle Nuevo (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the 10 types.

Remarks.—This species is one of a group of three collected by Dr. Darlington that are very distinct by the subterranean habitus. It differs greatly from *borinquense* and *pluviosum* in the punctation of the pronotum, but probably belongs, with those two species, to an undescribed subgenus.

It was found at elevations of 6,000 to 7,000 feet in cloud-forest, probably in ground cover.

9. LOBRATHIUM BORINQUENSE, new species

Description.—Rufous, with abdomen more or less piceous. *Head* above entirely impunctate except for a large setigerous puncture over each eye, a pair between the eyes, and a row of four above the neck; without trace of ground sculpture; gular sutures widely separated, nearly parallel throughout. *Pronotum* nearly twice as long as head or elytra and twice as long as broad; with median space outlined by two even rows of six punctures; with 7 to 10 scattered punctures laterally; without trace of ground sculpture. *Elytra* very small, appressed; each with 4 longitudinal series of large punctures, the inner two rows of about 4 punctures, the outer 2 of 6 to 8; without trace of ground sculpture. *Hind tarsus* with first segment about as long as second. *Abdo-*

men with all visible ventral segments deeply pitted on each side near front, the pit abrupt and flaringly excavated posteriorly, the excavation bordered by a distinct cariniform edge which extends half the length of the segment. *Male*, eighth sternite truncate with posterior border thickened and raised at both sides of center giving appearance of a narrow median groove, apical median portion of segment flattened and smooth. *Female*, eighth sternite truncate but otherwise unmodified. Length, 6½ to 7½ mm.

Type locality.—Puerto Rico, El Yunque, elevation about 3,000 feet.

Types.—Holotype, male, and one paratype, female, in the Museum of Comparative Zoology; one paratype, male, in the United States National Museum (No. 52499); collected in May 1938, by Dr. P. J. Darlington.

Records.—The following is the only record known to me:

Puerto Rico: El Yunque (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the three types.

Remarks.—This is a very striking species with a distinctly subterranean appearance. The excavations on the abdominal sternites are unique among the staphylinids known to me. It appears to belong in an undescribed subgenus.

I have received no record of its habits, but there is a strong presumption that it occurs in ground cover.

10. LOBRATHIUM PLUVIOSUM, new species

Description.—Rufous, abdomen slightly picescent. *Head* with moderately large but very sparse setigerous punctures; without trace of ground sculpture; gular sutures rather widely separated and parallel. *Pronotum* one-half longer than head or elytra, one-fourth longer than wide; with an irregular median smooth space not outlined by series of punctures, punctures sparse and moderate; without trace of ground sculpture. *Elytra* very small, appressed; with sparse and rather indefinite punctures not arranged serially; surface somewhat uneven but without ground sculpture. *Hind tarsus* with first segment about as long as second. *Abdomen* without excavations at the sides of the sternites. *Male*, eighth sternite with a small rounded emargination and a narrow smooth stripe along the entire midline. *Female*, eighth segment narrowly rounded and without smooth stripe. Length, 5 to 5½ mm.

Type locality.—Dominican Republic, vicinity of Valle Nuevo, at elevation of about 6,000 feet.

Types.—Holotype, male, and one paratype, female, in the Museum of Comparative Zoology; one paratype, male, from Loma de la Peña, northwest of Constanza, in the United States National Museum (No. 52500); all collected in August 1938 by Dr. P. J. Darlington.

Records.—The following are the records known to me:

Hispaniola: DOMINICAN REPUBLIC, Valle Nuevo (Darlington, in M.C.Z.), Constanza (Darlington, in U.S.N.M.).

Specimens examined.—I have seen only the three types.

Remarks.—This is a distinctly subterranean species in appearance. It is readily distinguished from *reductum* and *borinquense* by the absence of serial punctures on the pronotum and elytra as well as by the male characters, but it belongs in the same undescribed subgenus.

The types in the Museum of Comparative Zoology were found in cloud forest, probably under ground cover.

XLIV. Genus PAEDERUS Fabricius

Paederus FABRICIUS, 1775, p. 268.
Poederus LUCAS, 1857, p. 51. (misspelling).
Poederomorphus GAUTIER, 1862, p. 75.
Paederomorphus MARSEUL, 1866, p. VI (misspelling).
Paederidus MULSANT and REY, 1877, p. 245.
Leucopaederus CASEY, 1905, pp. 59, 67.
Paederillus CASEY, 1905, pp. 59, 62.
Subgenus *Pseudopaederus* BERNHAUER, 1915b, p. 137.
Subgenus *Gnathopaederus* CHAPIN, 1927, p. 75.
Subgenus *Paederognathus* WENDELER, 1928a, p. 37.
Gnathopaederus WENDELER, 1927, p. 1 (not Chapin, 1927).
Subgenus *Neopaederus* BLACKWELDER, 1939a, p. 97.

Genotypes.—*Staphylinus riparius* Linnaeus=*Paederus riparius* (Linnaeus) (designated in 1810 by Latreille). Of *Poederomorphus*, *P. pedoncularius* Gautier (monobasic); of *Leucopaederus*, *Paederus ustus* LeConte=*Leucopaederus ustus* (LeConte) (monobasic); of *Paederillus*, *Paederus littorarius* Gravenhorst=*Paederillus littorarius* (Gravenhorst) (designated by Blackwelder, 1939); of *Paederidus*, *Paederus ruficollis* Fabricius=*Paederus* (*Paederidus*) *ruficollis* Fabricius (designated by Blackwelder, 1939); of *Gnathopaederus* Chapin, *G. szechuanus* Chapin (original designation; monobasic); of *Gnathopaederus* Wendeler, *G. turrialbanus* Wendeler (monobasic); of *Paederognathus*, *Gnathopaederus turrialbanus* Wendeler=*Paederognathus turrialbanus* (Wendeler) (monobasic); of *Pseudopaederus*, *Paederus* (*Pseudopaederus*) *nigerrimus* Bernhauer (designated by Blackwelder, 1939); of *Neopaederus*, *Paederus morio* Mannerheim=*Paederus* (*Neopaederus*) *morio* Mannerheim (original designation).

Diagnosis.—Body elongate, moderately convex; head exserted, constricted behind; antennae inserted under sides of front of head, not geniculate but posteriorly flexile, 11-segmented, filiform; labrum short, transverse, emarginate at middle; fourth segment of maxillary palpus short, compressed, pubescent; mentum transverse; submentum transverse; gular sutures converging toward line of constriction from both ends; prosternum short, not carinate, abbreviated between and under coxae forming an acute point which does not attain the mesosternum; anterior coxal cavities narrowly open behind; front coxae very large, conical, prominent; middle coxal cavities confluent; posterior coxae large, conical, contiguous; abdomen margined; first and second sternites absent; eighth sternite excised in male, lobed in female; tarsi 5-segmented, fourth segment bilobed.

Remarks.—I have made no changes in this genus except in the characters used to distinguish it and its parts. It is one of the most easily recognized of the Staphylinidae.

Fifty-four examples from the West Indies are herein assigned to four species, of which one is new.

KEY TO WEST INDIAN SPECIES OF PAEDERUS

1.	Color uniform rufotestaceous throughout	3. jamaicensis
	Color in part blue or black	2
2.	Body black throughout	4. morio
	Body in part rufous or testaceous	3
3.	Abdomen entirely black	2. homonymus
	Base of abdomen testaceous	1. mutans

1. PAEDERUS MUTANS Sharp

Paederus mutans SHARP, 1876, p. 286.—BERNHAUER and SCHUBERT, 1912, p. 209.—PLAVILSTSCHIKOV, 1929, p. 29.—BLACKWELDER, 1939a, p. 112.

Description.—Rufotestaceous, elytra cyanescent, seventh and eighth abdominal segments black. *Head* with eyes a little wider than long, with moderate but very shallow punctures separated by one to three times their width, each puncture with a long black hair; labrum with a small triangular notch at middle, rather truncate in front with margin indistinctly crenulate. *Pronotum* one-sixth longer than wide, widest at anterior fourth, distinctly narrowed behind; punctures finer and sparser than on head but with similar hairs. *Elytra* as wide as pronotum, over one-sixth longer than wide; punctures coarse and deep, separated by less than their diameter by feebly convex intervals; suture feebly raised throughout. *Abdomen* with sparse and fine punctures more or less transversely serial, each with a long black hair, submuricate especially on apical segments; with feeble ground sculpture. *Male*, eighth sternite with "the usual excision." *Female*, eighth sternite deeply semicircularly emarginate on each side at apex, leaving prominent angles and an acuminate triangular median lobe. Length, 8 to 9 mm.

Type locality.—"Tapajos and Para," Amazon Valley, (Brazil).

Types.—In the British Museum.

Records.—The following are the records known to me:

Trinidad: (Bernhauer determination, in British Museum).
South America: Brazil (Sharp, 1876), Bolivia, Peru (Plavilstschikov, 1929).

Specimens examined.—I have seen the types and 16 other examples from South America and 1 from Trinidad in the British Museum, the latter borrowed for further study.

Remarks.—The above description is drawn from the female from Trinidad but does not conflict with the original.

I find no record of the habits of this species.

2. PAEDERUS HOMONYMUS, new name

Paederus tricolor Erichson, 1840, p. 663.—Sharp, 1886, p. 613.—Bernhauer and Schubert, 1912, p. 211.—Leng and Mutchler, 1914, p. 404; 1917, p. 199.—Blackwelder, 1939a, p. 112. (Not Fabricius, 1787.)

Paederus thoracicus Marshall, 1878, p. xxx (not Erichson; not Stephens).—Leng and Mutchler, 1917, p. 198.

Description.—Black, prothorax and mesosternum rufotestaceous, elytra aeneocyanescent. *Head* with eyes and exclusive of neck as wide as long; with moderate and shallow punctures separated by two to three times their diameter; with ground sculpture feeble in front, absent at center of vertex, and strong posteriorly; punctures with moderately long hairs; labrum truncate in front, coarsely crenulate, and with a small quadrate notch at middle. *Pronotum* one-fifteenth longer than wide, widest at anterior fourth, distinctly narrowed behind; punctures scarcely evident but separated by three to four times their diameter, much denser at sides, only marginal ones bearing hairs; disk with a slight median prominence near base. *Elytra* as wide as pronotum, one-fourth longer than wide; punctures coarse and deep, with intervals feebly convex. *Abdomen* with very sparse submuricate setigerous punctures and distinct ground sculpture. *Male*, eighth sternite with a deep parallel rounded excision. Length, 9 to 9½ mm.

Type locality.—". . . Ins. St. Vincentii Americae . . ." (=St. Vincent).

Types.—In either the Hope Museum, Oxford, or the Zoologische Museum, Berlin.

Records.—The following are the records known to me:

Martinique: (Marshall, 1878; Leng and Mutchler, 1917, as *thoracicus*).
St. Vincent: (Erichson, 1840; British Museum).
(**Guatemala:** (Bernhauer determination, in British Museum; Bernhauer and Schubert, 1912).)

Specimens examined.—I have seen only the 12 specimens in the British Museum; 1 of these I borrowed for further study.

Remarks.—The one example in the British Museum from Guatemala was determined by Bernhauer as this species, but my brief examination of it revealed the following differences: The Guatemalan example has no ground sculpture on the back of the head, has the elytra more irregular, almost sculptured, and the elytral punctures in irregular grooves but scarcely evident. This specimen was probably the basis for the Guatemalan record in the Bernhauer and Schubert catalog.

The specimens recorded from Martinique by Marshall as *thoracicus* Erichson are undoubtedly not that species but the present one.

I find no record of the habits of this species.

3. PAEDERUS JAMAICENSIS, new species

Paederus jamaicensis BERNHAUER, MS.

Description.—Rufotestaceous throughout. *Head* with eyes a little broader than long; without punctures except for a few large setigerous ones; with rather indistinct ground sculpture; labrum with a moderate triangular notch at center, edge somewhat crenate. *Pronotum* about one-sixth longer than wide, widest at anterior third, feebly narrowed behind; with a few setigerous punctures especially at the sides. *Elytra* at apex as wide as pronotum, closely appressed to body and much narrower at base; with about 10 large setigerous punctures; the surface uneven but not distinctly sculptured. *Abdomen* with about 10 large setigerous punctures on each segment; with very vague transverse ground sculpture. *Male*, unknown. *Female*, eighth sternite prolonged into an acutely triangular process. Length, 6 mm.

Type locality.—Jamaica.

Types.—Holotype, female, in the British Museum.

Records.—The following is the only record known to me:

Jamaica: (British Museum acc. 45.110).

Specimens examined.—I have seen only the unique type.

Remarks.—This specimen seems so very distinct from all other species of *Paederus* known from the West Indies that I describe it in spite of the chance that it is immature. It certainly does not belong to any of the other species listed here. It belongs in the subgenus *Neopaederus*.

I find no record of its habits.

4. PAEDERUS MORIO Mannerheim

Paederus morio MANNERHEIM, 1830, p. 39.—BERNHAUER and SCHUBERT, 1912, p. 208.—LENG and MUTCHLER, 1914, p. 404.—BLACKWELDER, 1939a, pp. 112, 120.

Description.—Black, elytra aeneous. *Head* over one-fourth wider than long; with moderately fine but very irregular punctures rather obscured by the dense fine ground sculpture; punctures at sides with short hairs; labrum truncate in front, with a small quadrate notch at middle, sides slightly arcuate and feebly crenulate. *Pronotum* one-eleventh longer than wide, widest at apical fourth, distinctly narrowed behind; with scattered punctures similar to head but sparser; ground sculpture distinct but very fine. *Elytra* slightly wider than pronotum, three-eighths wider than long; widest at apex, suture barely half as long as total; not distinctly punctate but with a few fine hairs; surface coarsely coriaceous, very uneven. *Abdomen* with sparse but somewhat transversely serial submuricate punctures; with very fine ground sculpture. *Male*, seventh sternite longitudinally depressed at middle, very feebly emarginate posteriorly; eighth sternite with a very deep parallel excision rounded at base and with outer angles rounded. *Female*, eighth sternite with a rounded emargination at each side to form prominent outer angles and a rounded median lobe. Length, 7 to 9 mm.

Type locality.—"Insula St. Domingo . . ." (=Hispaniola).

Types.—Presumably in Zoologisk Museum, Helsingfors.

Records.—The following are the records known to me:

Hispaniola: (Mannerheim, 1830, as island of "St. Domingo"; Leng and Mutchler, 1914, as island of "Haiti"); Haiti, Morne La Selle (Blackwelder station 22C), Kenskoff (Blackwelder station 23B; Darlington, in M.C.Z. and U.S.N.M.), Furcy (Mann, in M.C.Z.)

Specimens examined.—I have seen 22 specimens collected by me on Morne La Selle and 1 at Kenskoff, as well as 5 from the Museum of Comparative Zoology.

Remarks.—There can be little doubt that these specimens belong to Mannerheim's species. My specimens were taken at considerable elevations, 6,000 feet on Morne La Selle and close to 4,000 feet at Kenskoff.

All the previous published records refer to the island as a whole (under the name of Haiti or Santo Domingo), and it is probable that the specimens came from Haiti. If the species is found elsewhere in the island it will probably be in the north-central mountains of Haiti or the higher central range of the Dominican Republic.

My examples were all taken while beating trees and shrubs at the edge of the jungle.

XLV. Genus HOMOEOTARSUS Hochhuth

Homoeotarsus Hochhuth, 1851, p. 34.
Homaeotarsus Lacordaire, 1854, p. 89 (misspelling).
Spirosoma Motschulsky, 1858b, p. 206.
Subgenus *Hesperobium* Casey, 1886a, p. 33.
Subgenus *Eucryptina* Casey, 1905, pp. 24, 28.
Subgenus *Gastrolobium* Casey, 1905, p. 31.
Subgenus *Homoeobium* Blackwelder, 1939a, p. 96, 114, 118.
Subgenus *Nemoeotus* Blackwelder, 1939a, p. 96, 114, 120.

Genotypes.—*H. chaudoiri* Hochhuth (monobasic). Of *Spirosoma*, *S. fulvescens* Motschulsky (monobasic); of *Eucryptina*, *Cryptobium* *opacum* Sharp=*Eucryptina opaca* (Sharp) (monobasic and original designation); of *Gastrolobium*, *Lathrobium bicolor* Gravenhorst=*Gastrolobium bicolor* (Gravenhorst) (designated by Blackwelder, 1939); of *Hesperobium*, *Cryptobium tumidum* LeConte=*Hesperobium tumidum* (LeConte) (original designation); of *Homoeobium*, *Homoeotarsus* (*Homoeobium*) *bakerianum* Blackwelder (monobasic and original designation); of *Nemoeotus*, *Cryptobium rubiginosum* Bernhauer=*Homoeotarsus* (*Nemoeotus*) *rubiginosus* (Bernhauer) (monobasic and original designation).

Diagnosis.—Body very elongate, parallel; integuments moderately densely punctate; antennae anteriorly flexile, strongly geniculate, basal segment much elongate; labrum bilobed; fourth segment of maxillary palpus subulate; gular sutures separate; neck more than one-half as wide as head, abruptly constricted across dorsal surface; prosternum not dilated under the coxae; hypomera feebly lobed behind coxae; anterior coxal cavities open behind; front coxae large, exserted; elytron with a longitudinal fold above side margin; middle coxal cavities confluent; posterior coxae contiguous, "conical"; first and second abdominal sternites absent; third longitudinally carinate at base; fourth and fifth in male sometimes with a median fovea, fifth sometimes lobed (males sometimes dimorphic); basal half of anterior tibia with a concavity lined with diagonal ctenidia, with a corresponding prominence on the femur; apex of posterior tibia with a ctenidium on each side.

Remarks.—This genus is distinguished by the structure of the antennae and the presence of the pleural elytral fold. It is rather variable in the secondary male characters, and the subgenus *Gastrolobium*, to which all our species belong, is highly developed in this respect. At least some of the species have dimorphic males.

The name given above to this genus has not previously been used in connection with New World faunas (except temporarily by Casey, 1889a, p. 182). The division of the genus *Cryptobium* on the character of the elytral fold leaves us with four subgeneric names, of which one must be the generic name as well. The oldest name is *Homoeotarsus* and must be accepted on that basis.

I have seen 187 specimens from the West Indies. These I assign to 4 species, of which 2 are new.

KEY TO WEST INDIAN SPECIES OF HOMOEOTARSUS

1. Head with ground sculpture throughout ---------------------------- 2
   Vertex between eyes without ground sculpture ------------------- 1. solus
2. Pronotum with dense ground sculpture -------------------- 4. testaceipes
   Pronotum without ground sculpture ---------------------------------- 3
3. Fovea of fifth sternite obsolescent, very shallow ----------- 3. obsolescens
   Fovea of fifth sternite distinct, deep, usually oval and strongly concave.
   2. albipes

1. HOMOEOTARSUS SOLUS, new species

Description.—Uniform black to rufopiceous throughout, the pronotum sometimes with a blue-green tinge. *Head* with coarse punctures scarcely distinctly separated near base, each puncture well defined posteriorly but gradually excavated in front, almost absent near clypeus, very scattered between eyes; ground sculpture visible within the punctures basally and laterally, but area between and in front of eyes entirely smooth, shining; eyes in front of middle, separated by more than twice their length from base; basal antennal segment not quite as long as distance between antennae. *Pronotum* with narrow impunctate median stripe, rest with coarse punctures usually separated by less than half their diameter (more irregular at sides); without ground sculpture. *Elytra* with coarse punctures separated by about half their diameter by convex intervals, with no trace of serial arrangement; without ground sculpture. *Male*, fourth sternite with a distinct transverse setigerous fovea; fifth with a small circular fovea and usually with a posterior lobe one-fourth as broad as segment extending past middle of sixth sternite and with its apex truncate; sixth and seventh sternites impunctate along middle. *Female*, without modifications of the sternites. Length, 6 mm.

Type locality.—Cuba, Cayamas, 15 miles west-northwest of Cienfuegos, province of Santa Clara.

Types.—Holotype, female, U.S.N.M. No. 52539, collected on January 18 by E. A. Schwarz. Also 24 paratypes in the United States National Museum and the Museum of Comparative Zoology.

Records.—The following are the records known to me:

Cuba: Cayamas (Schwarz, in U.S.N.M.), Pico Turquino (Darlington, in M.C.Z. and U.S.N.M.) Gran Piedra Range, Oriente (Darlington, in M.C.Z. and U.S.N.M.), mountains north of Imias, Oriente (Darlington, in M.C.Z. and U.S.N.M.), Loma del Gato, Cobre Range, Oriente (Darlington, in M.C.Z and U.S.N.M.).

Jamaica: Cinchona (Darlington, in M.C.Z.).

Hispaniola: HAITI, northeast foothills of the Massif de La Hotte (Darlington, in M.C.Z. and U.S.N.M.); DOMINICAN REPUBLIC, Constanza (Darlington, in M.C.Z. and U.S.N.M.), foothills south of Santiago (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the 25 types.

Remarks.—This is a very distinct species because of its uniform color and the unsculptured interocular space of the head. It belongs in the subgenus *Gastrolobium.*

I have no record of its habits except that it is frequently found at elevations up to 5,000 feet.

2. HOMOEOTARSUS ALBIPES (Erichson)

Cryptobium albipes Erichson, 1840, p. 566.—Bernhauer and Schubert, 1912, p. 279.—Leng and Mutchler, 1914, p. 405.—Wolcott, 1924, p. 78; 1936, p. 197.—Blackwelder, 1939a, p. 113.

Cryptobium marginellum Bernhauer, 1908b, p. 322.—Bernhauer and Schubert, 1912, p. 284.—Leng and Mutchler, 1914, p. 405.

Homoeotarsus albipes (Erichson) Blackwelder, 1939a, p. 113.

Description.—Pitchy black with apex of elytra and abdominal tergites narrowly testaceous, varying to castaneous with head piceous and pronotum rufous. *Head* with moderately coarse and dense punctures generally separated by less than their diameter (basally and laterally by less than half their diameter); punctures absent near clypeus but scattered between eyes; with dense and distinct ground sculpture throughout; eyes in front of midline, at twice their length from base; basal segment of antennae not quite as long as distance between antennae. *Pronotum* with narrow impunctate median stripe, rest with coarse punctures separated by half their diameter or less (a little more at sides); without ground sculpture. *Elytra* with coarse punctures separated by about one-fourth their diameter by convex intervals, with no trace of serial arrangement; without ground sculpture. *Male* dimorphic, always with a well-developed transverse fovea on fourth and fifth sternites, fifth sternite with or without a broad rounded posterior lobe extending to the seventh sternite. *Female* without foveae or other modifications of the sternites. Length, 7 to 8 mm.

Type locality.—Puerto Rico. Of *marginellum*, St. Vincent.

Types.—In either the Hope Museum, Oxford, or the Zoologische Museum, Berlin. Of *marginellum*, "In der Sammlung des k. k. naturhistorischen Hofmuseums in Wien und in meiner eigenen" (Bernhauer).

Records.—The following are the records known to me:

Cuba: Cayamas (Schwarz in U.S.N.M.), Cauto El Cristo, Oriente (Darlington, in M.C.Z. and U.S.N.M.), Soledad (Darlington, in M.C.Z. and U.S.N.M.), Imias, Oriente (Darlington, in M.C.Z.), Baragua (Scaramuzza, in M.C.Z.), Aguadores, Oriente (Darlington, in M.C.Z. and U.S.N.M.), Marcata, Rio Bayamo (Darlington, in M.C.Z.).

Jamaica: Kingston (Blackwelder station 379; Darlington, in M.C.Z. and U.S.N.M.).

Hispaniola: Haiti, Ennery (Darlington, in M.C.Z. and U.S.N.M.), Plaine de l'Artibonite (Darlington, in M.C.Z. and U.S.N.M.); Dominican Republic, Barahona (Darlington, in M.C.Z.).

Puerto Rico: (Erichson, 1840; Leng and Mutchler, 1914, as both; Wolcott, 1924, 1936), Bayamon (Lesesnes, in U.S.N.M.).

St. Vincent: (Bernhauer, 1908, as *marginellum;* Leng and Mutchler, 1917, as *marginellum;* Blackwelder stations 166, 170, 176A).

Grenada: (British Museum).

South America: Venezuela, Colombia (Bernhauer and Schubert, 1912).

Central America: Guatemala, Mexico (Bernhauer and Schubert, 1912).

Specimens examined.—I have seen 23 examples in the British Museum, 31 from the Museum of Comparative Zoology, 3 in the United States National Museum, and 59 I collected during 1935–37.

Remarks.—This is a variable species both in color and punctation. The latter varies in arrangement and somewhat in density, but very little in the size of the punctures. The dimorphism of the male is similar to that observed in North American species of *Gastrolobium*, to which subgenus this species belongs.

I have collected this species from under stones at the edge of streams.

3. HOMOEOTARSUS OBSOLESCENS, new species

Description.—Black, anterior and posterior margin of pronotum and elytra more or less rufescent. *Head* with moderate punctures, each more abrupt posteriorly, narrowly separated basally but by about their diameter on vertex and still more sparsely in front; with very dense and very strong ground sculpture throughout; eyes in front of midline, at over twice their length from base; basal segment of antennae not quite so long as distance between antennae. *Pronotum* with irregular median smooth stripe, rest with coarse irregular punctures generally very dense but sparser at sides; without ground sculpture. *Elytra* with coarse deep punctures separated by convex intervals, with no trace of serial arrangement; without ground sculpture. *Male* dimorphic, fourth sternite with a distinct fovea, fifth with only a trace of a setigerous fovea, not lobed, or with a broad rounded triangular lobe reaching to the seventh sternite. *Female*, sternites not modified. Length, 7 to 8½ mm.

Type locality.—Trinidad, 3 miles northeast of St. Augustine on the Tacarigua River, county of St. George, ward of Tacarigua.

Types.—Holotype, male, and one paratype, female, U.S.N.M. No. 52425, collected by me on December 22, 1935; two paratypes in the British Museum, one from Caparo and one labeled merely Trinidad; two paratypes from Tobago in the United States National Museum, and five paratypes from the Museum of Comparative Zoology.

Records.—The following are the records known to me:

Tobago: (Blackwelder station 119).

Trinidad: (Birch, in B.M.), Tacarigua (Blackwelder station 107A), Caparo (Klages, in B.M.), St. Augustine (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen two specimens in the British Museum, five from the Museum of Comparative Zoology, and four collected by me in 1935–37.

Remarks.—The examples in the British Museum were labeled *Cryptobium marginellum* Bnhr. and *Cryptobium assimile* Er., the former apparently in the handwriting of Dr. Bernhauer. They appear to me to differ from the descriptions of those species and to agree with my Trinidad specimens. The obsolete fovea of the fifth sternite of the male is quite distinctive, regardless of the presence or absence of the lobe. This species belongs in the subgenus *Gastrolobium*.

My specimens were found beneath stones at the edge of streams.

4. HOMOEOTARSUS TESTACEIPES (Bierig)

Gastrolobium testaceipes Bierig, 1935b, p. 39, pl. 4, figs. 5, 6.
Gastrolobium congener Bierig, 1935b, p. 40.

Description.—Black, sometimes more or less rufescent. *Head* with moderate punctures, each more abrupt posteriorly, narrowly separated basally but by about their diameter on vertex and still more sparsely in front; with very dense and strong ground sculpture throughout; eyes in front of midline, at over twice their length from base; basal segment of antennae not quite so long as distance between antennae. *Pronotum* with irregular impunctate median stripe, rest with moderate umbilicate punctures, usually separated by more than their diameter and somewhat obscured by the coarse dense ground sculpture. *Elytra* with moderately coarse deep punctures, abrupt only in front, the intervals flat, without serial arrangement; surface exceedingly minutely coriaceous. *Male* dimorphic, fourth sternite with a transverse fovea; fifth with a small circular fovea, with or without a narrow acuminate lobe, which extends to the seventh sternite. *Female*, sternites not modified. Length, 8 to 10 mm.

Type locality.—Cuba, "Cercania de Guanabo; Caimito del Guayabal." Of *congener*, Cuba, "Sierra del Rosario, Rio Taco-Taco."

Types.—In collection of Alexander Bierig (for both). (Three "cotypes" of *congener* are in the United States National Museum, No. 52727.)

Records.—The following are the records known to me:

Cuba: Guanabo (Bierig, 1935), Caimito del Guayabale (Bierig, 1935), Sierra del Rosario (Bierig, 1935, as *congener*), Aspiro (Bierig, in U.S.N.M., as *congener*), Buenos Aires, Trinidad Mountains (Darlington, in M.C.Z. and U.S.N.M.), Maisi, Oriente (Darlington, in M.C.Z. and U.S.N.M.), Rangel Mountains, Pinar del Rio (Darlington, in M.C.Z.), Soledad (J. G. Myers and Darlington, in M.C.Z. and U.S.N.M.).

Hispaniola: Haiti, Ennery (Darlington, in M.C.Z. and U.S.N.M.), mountains near Port-au-Prince (Darlington, in M.C.Z. and U.S.N.M.), northeast foothills of the Massif de La Hotte (Darlington, in M.C.Z. and U.S.N.M.), Camp Perrin (Darlington, in M.C.Z.) ; Dominican Republic, Villa Altagracia (Darlington, in M.C.Z. and U.S.N.M.), Puerto Plata (Darlington, in M.C.Z. and U.S.N.M.), Constanza (Darlington, in M.C.Z.).

Specimens examined.—Beside the paratypes of *congener*, I have seen 33 examples from the Museum of Comparative Zoology.

Remarks.—Although I have not seen examples identified by Bierig as *testaceipes*, the three examples of *congener*, in conjunction with the original descriptions and a series from various parts of Cuba, lead me to believe that the two species cannot be distinguished. The relative widths of the pronotum and elytra, as recorded, do not apply to these "cotypes," and the remaining characters appear to me to be of very much less than specific importance when we take into consideration the variation found throughout this genus.

In addition to the male characters this species differs from *albipes* in the presence of ground sculpture on the pronotum and in other details.

The species is recorded from the edge of water, beneath stones and decaying plant debris.

XLVI. Genus OCHTHEPHILUM Stephens

Ochthephilum STEPHENS, 1829, p. 287. (Not *Ochthephilus* Mulsant and Rey, 1856.)
Cryptobium MANNERHEIM, 1830, p. 38.
Ochtephilum STEPHENS, 1832, p. 200 (misspelling).
Octhephilum LACORDAIRE, 1854, p. 89 (misspelling).
Octephilum BERNHAUER and SCHUBERT, 1911, p. 92 (misspelling).
Subgenus *Ababactus* SHARP, 1885, p. 533.
Subgenus *Cryptobiella* CASEY, 1905, p. 29.
Subgenus *Astenobium* BERNHAUER, 1911, p. 411.
Subgenus *Neobactus* BLACKWELDER, 1939a, p. 96.

Genotypes.—*Paederus fracticornis* Paykull=*Ochthephilum fracticorne* (Paykull) (monobasic). Of *Cryptobium*, *Paederus fracticornis* Paykull=*Cryptobium fracticorne* (Paykull) (monobasic); of *Ababactus*, *A. depressus* Sharp (designated by Blackwelder, 1939); of *Cryptobiella*, *C. colonica* Casey (original designation; the designation of *C. rostratum* Sharp by Bierig, 1935, is not valid); of *Astenobium*, *A. excellens* Bernhauer (monobasic); of *Neobactus*, *Cryptobium* (*Neobactus*) *nunenmacheri* Blackwelder (monobasic and original designation).

Diagnosis.—Body moderately elongate, not distinctly parallel; integuments strongly punctate, often without ground sculpture; antennae anteriorly flexile, strongly geniculate, basal segment much elongate; labrum bidenticulate; fourth segment of maxillary palpus subulate; gular sutures separate; neck more than one-fourth as wide as head; prosternum not dilated beneath the coxae; hypomera feebly lobed behind the coxae; anterior coxal cavities open behind; front coxae large, exserted; elytra without pleural fold; middle coxal cavities confluent; posterior coxae contiguous, "conical"; first and second abdominal sternites absent, third carinate at base; fourth and fifth sternites of male not modified; basal half of anterior tibiae without diagonal ctenidia; apex of posterior tibia with a ctenidium on each side.

Remarks.—This genus was restricted by Casey to the small European species. It is apparent from a study of the genotypes of this and Casey's new genera that they are not all of the same value. *Cryptobium* is therefore restored to the American lists with three subgenera, and the remaining names are grouped under *Homoeotarsus* and *Biocrypta.*

Cryptobium centrale Sharp of Central and South America is listed by both Bernhauer and Schubert and Leng and Mutchler as occurring in Guadeloupe. It is at least likely that this is a misidentification, but I am not able to say to which of our species (or genera) it really pertains.

Inasmuch as the name *Ochthephilum* has priority over *Cryptobium* (and the two are isogenotypic), the former must be accepted as the valid name for this genus.

I have seen only three examples of this genus from the West Indies. They belong to two new species, and one other species has been recorded from Cuba and one from Trinidad.

KEY TO WEST INDIAN SPECIES OF OCHTHEPHILUM

1. Eyes at not over twice their length from base; basal segment of antenna longer than interantennal distance ____ 2
   Eyes at four times their length from base; basal segment of antenna as long as interantennal distance ____ 3. darlingtoni
2. Basal segment of antennae twice as long as interantennal distance; head very strongly narrowed in front ____ 2. trinitatum
   Basal segment of antennae one-half longer than interantennal distance; head feebly narrowed in front ____ 1. atlanticum

1. OCHTHEPHILUM ATLANTICUM (Bierig)

Cryptobiella atlantica Bierig, 1935b, p. 41, pl. 4, figs. 8, 9, 10.

Description.—Piceous, anterior and posterior margin of pronotum rufescent, apex of elytra testaceous. *Head* not greatly narrowed in front of eyes; punctures moderately large, umbilicate, clearly impressed on disk, somewhat sparse on clypeal area, intervals on vertex narrower than punctures; with dense ground sculpture; with a feeble epicranial depression with clustered punctures; eyes at or a little behind the middle; basal segment of antennae about four-fifths as long as head but only one-half longer than distance between antennae; antennal grooves distinct; labrum scarcely emarginate and with two minute denticles; neck one-half as wide as head. *Pronotum* with punctures denser than on head, somewhat vague and subserial; with a broad smooth median band, canaliculate posteriorly; with ground sculpture. *Male*, seventh sternite feebly emarginate and with disk impressed; eighth with a narrow excision nearly three times as deep as width at apex. Length, 5 to 6 mm. (From Bierig.)

Type locality.—Cuba, "Embocadura del Rio Cojimar: Playa de Marianao."

Types.—In collection of Alexander Bierig.

Records.—The following are the records known to me:

Cuba: Rio Cojimar, Playa de Marianao (Bierig, 1935).

Specimens examined.—I have seen no examples of this species.

Remarks.—The differences between this and *trinitatum* are listed under the latter species. Certain of the characters in the above description were taken from the figures given by Bierig. This species belongs in the subgenus *Cryptobiella* as stated by Bierig, although his genotype designation for it is not valid (see Blackwelder, 1939a).

Recorded as found in accumulated seaweed.

2. OCHTHEPHILUM TRINITATUM, new species

Description.—Rufous, elytra piceous with apical margin testaceous. *Head* narrowed in front of the eyes; eyes situated at middle of length; coarsely and densely, almost umbilicately punctate, sparser in front; with rather indistinct ground sculpture throughout; basal segment of antennae three-fourths as long as head, over twice as long as distance between antennae; antennal grooves distinct; labrum with distinct denticle at sides of a rounded median emargination; neck half as wide as head. *Pronotum* with narrow smooth and slightly elevated median band, not canaliculate at base; punctures rather large, umbilicate, leaving smooth areas, without ground sculpture. *Elytra* with coarse punctures, narrowly separated by convex intervals, without trace of serial arrangement; intervals with very indistinct ground sculpture. *Male*, seventh sternite with a very shallow but abrupt median emargination and the surface depressed posteriorly before the emargination; eighth with an abrupt and deep narrow emargination twice as deep as wide and gradually rounded to apex. *Female*, eighth sternite truncate. Length, 5 mm.

Type locality.—Trinidad, 3 miles northeast of St. Augustine on the Tacarigua River, county of St. Georges, ward of Tacarigua.

Types.—Holotype, female, and four paratypes, male, U.S.N.M. No. 52540, collected by me on December 22, 1935; four paratypes in the Museum of Comparative Zoology; one paratype in the British Museum.

Records.—The following are the records known to me:

Trinidad: Tacarigua (Blackwelder station 107C), St. Augustine (Withycombe, in the British Museum; Darlington, in M.C.Z. and U.S.N.M.), Cedros (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the ten types.

Remarks.—This species differs from *atlanticum* in the characters used in the key, as well as the presence of denticles and an emargination on the labrum and the canaliculate median pronotal band. It belongs in the subgenus *Cryptobiella*.

The type was found under moss on a rock.

3. OCHTHEPHILUM DARLINGTONI, new species

Description.—Testaceocastaneous, a little dark in front (probably somewhat immature). *Head* somewhat expanded behind the eyes, nearly circular; eyes very small, separated from base by nearly four times their diameter, from apex by one and one-half times; basal segment of antenna barely half as long as head, about as long as distance between antennae; antennal grooves moderate; labrum with a narrow emargination between two blunt teeth; neck half as broad as head; punctures moderate, not distinctly umbilicate though sloping anteriorly and sculptured within, often separated by less than their diameter, very sparse in front; with very fine scaly ground sculpture throughout. *Pronotum* with an impunctate median band not outlined by regular series of punctures; punctures less coarse than on head but more irregularly spaced; feebly depressed medially before base; with ground sculpture as on head. *Elytra* shorter than pronotum, narrower than abdomen; with punctures irregularly uniting, giving a subrugose appearance, the intervals not flattened; without ground sculpture but with a somewhat coriaceous texture. *Male,* unknown. *Female,* sternites not modified. Length, 7 mm.

Type locality.—Cuba, south side of Pico Turquino, elevation 3,000 to 5,000 feet.

Types.—Holotype in the Museum of Comparative Zoology, collected in June 1936 by Dr. P. J. Darlington.

Records.—The following is the only record known to me:

Cuba: Pico Turquino (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the unique type.

Remarks.—This specimen differs so greatly from the description of *atlanticum* Bierig that I cannot believe that it is the same. The eyes are small and placed well before the middle, the basal segment of the antenna is very much shorter, the punctures are not umbilicate, and the length is greater. The small elytra with coriaceous texture give it the appearance of a subterranean species.

I have received no record of its habits.

4. OCHTHEPHILUM TRINIDADENSE (Bernhauer)

Cryptobium trinidadense Bernhauer, 1934, p. 161.

Original description.—"Dem *C. rostratum,* Sharp, in der Gestalt ausserordentlich ähnlich, durch die Färbung und viel feinere und dichtere Punktierung das ganzen Körpers auf den ersten Blick zu unterscheiden.

"Bräunlichrot, der Halsschild rötlichbraun, der Kopf und die Flügeldecken pechschwarz, der schmale Hinterrand der Flügeldecken, der vorderste Teil des Kopfes, die Taster und Beine rötlichgelb, die

Fühler bräunlich, die Wurzel und Spitze gelblich. Der Kopf ist etwas schmäler als der Halsschild, viel länger als breit, hinter den in der Mitte der Seiten gelegenen Augen unmerklich erweitert, fein und sehr dicht, zwischen und vor den Augen stärker und viel weitläufiger punktiert, daselbst glänzend, hinten matt, vor dem Vorderrande äusserst zart chagriniert. Die Fühler sind gestreckt, die vorletzten Glieder viel länger als breit. Der Halsschild ist viel schmäler als die Flügeldecken, um ein Drittel länger als breit, vor der Mitte schwach erweitert, ausserhalb der breiten, erhabenen spiegelglänzenden Mittelzone ziemlich kräftig und dicht, etwas ungleichmässig punktiert glänzend. Die Flügeldecken sind beträchtlich länger als der Halsschild, mässig stark und sehr dicht punktiert, wenig glänzend, neben dem Seitenrande ohne Kiellinie. Der Hinterleib ist aüsserst fein und dicht, fast chagrinartig punktiert. Länge: 5.5 mm. Beim ♂ ist das sechste Sternit in der Mitte des Hinterrandes breit dreieckig ausgerandet."

Type locality.—Trinidad, St. Augustine.

Types.—In either the collection of Dr. Bernhauer or in the British Museum; collected on April 15, 1926, by C. L. Withycombe.

Records.—The following is the only record known to me:

Trinidad: St. Augustine (Bernhauer, 1934).

Specimens examined.—I have seen no example of this species.

Remarks.—The original description seems to be sufficient to place this species in the genus *Ochthephilum* (*Cryptobium* of authors) but will not enable me to place it in the key. It seems to differ from the other species in the feeble male characters.

I find no record of its habits.

XLVII. Genus BIOCRYPTA Casey

Biocrypta Casey, 1905, pp. 26, 51.

Genotype.—*Cryptobium prospiciens* LeConte=*Biocrypta prospiciens* (LeConte) (monobasic and original designation).

Diagnosis.—Integuments moderately punctate, sometimes with ground sculpture; antennae anteriorly flexile, strongly geniculate, basal segment elongate: labrum not denticulate; fourth segment of maxillary palpus subulate; gular sutures separate; neck more than one-fourth as wide as head; prosternum not transversely impressed before coxae, not dilated beneath the coxae; hypomera feebly lobed behind coxae; anterior coxal cavities open behind; front coxae large, exserted; elytra without trace of pleural fold; middle coxal cavities confluent; posterior coxae contiguous, "conical"; first and second abdominal sternites absent; third carinate at base; fifth sternite of male with a median fovea and a posterior lobe; basal half of anterior tibia with a concavity lined with diagonal ctenidia; apex of posterior tibia with a ctenidium on each side.

Remarks.—This genus is very similar to *Homocotarsus* but it is distinguished by the absence of the pleural fold. From *Ochthephilum* it differs by lacking denticles on the labrum.

From the West Indies I have seen 98 specimens, representing nine species, of which eight appear to be new.

KEY TO WEST INDIAN SPECIES OF BIOCRYPTA

1. Eyes moderately small, separated from base by not over three times their diameter; elytra normal 2
Eyes very small, separated from base by at least four times their diameter; elytra reduced 5
2. Vertex with dense ground sculpture .... 1. darlingtoni
Vertex between the eyes at most with traces of ground sculpture 3
3. Head longer than broad; sternites of female unmodified; fifth sternite of male with a very large circular fovea .... 4. dominicana
Head as broad as or broader than long; fifth sternite of female generally modified; fifth sternite of male with at most a moderate fovea 4
4. Head impunctate along center of vertex; punctures seldom separated by less than their diameter .... 3. trinitatis
Head more or less punctate throughout; punctures usually separated by less than their diameter .... 2. fulvipes
5. Eyes minute, separated from base by about eight times their diameter. .... 9. hispaniola
Eyes very small but separated from base by only about four times their diameter 6
6. Disk of pronotum finely coriaceous but without distinct ground sculpture 7
Disk of pronotum with distinct ground sculpture, not at all coriaceous 8
7. Head distinctly swollen behind eyes .... 5. haitia
Head scarcely at all swollen behind eyes .... 8. jamaicensis
8. Head between the eyes with dense ground sculpture .... 7. densa
Head between eyes without ground sculpture .... 6. cubensis

1. BIOCRYPTA DARLINGTONI, new species

Description.—Rufopiceous, the pronotum black, posterior margin of elytra rufotestaceous. *Head* with eyes at twice their length from base, at their length from apex; basal segment of antennae nearly two-thirds as long as head, as long as distance between them; antennal grooves distinct; with moderate punctures and a few very coarse ones between the eyes; with very fine and dense ground sculpture throughout. *Pronotum* with distinct and slightly elevated smooth median band set off by fairly regular series of punctures; rather coarsely and fairly densely punctured; without ground sculpture. *Elytra* much larger than pronotum; with dense moderate punctures separated by convex intervals, not distinctly serial; without ground sculpture. *Male,* fourth sternite with a slightly elevated transverse fovea occupying middle seventh of the width; fifth sternite with an obsolescent fovea of about the same size; eighth sternite rounded. *Female*, unknown. Length, 7½ mm.

Type locality.—Trinidad, St. Augustine.

Types.—Holotype, male, in Museum of Comparative Zoology; one paratype, male, in United States National Museum (No. 52503); collected in April 1929 by Dr. P. J. Darlington.

Records.—The following is the only record known to me:

Trinidad: St. Augustine (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the two types.

Remarks.—This species is readily distinguished by the dense ground sculpture of the vertex as well as by the feebly developed male characters. It is a typical member of the genus.

I have received no record of its habits.

2. BIOCRYPTA FULVIPES (Erichson)

Cryptobium fulvipes ERICHSON, 1840, p. 566.—HORN, 1885, p. 98.—BERNHAUER and SCHUBERT, 1912, p. 283.—LENG and MUTCHLER, 1914, p. 405.—WOLCOTT, 1924, p. 78; 1936, p. 197.—BLACKWELDER, 1939a, p. 114.

Biocrypta fulvipes (Erichson) BLACKWELDER, 1939a, p. p. 114.

Description.—Rufous or rufocastaneous with head picescent. *Head* with punctures of very irregular sizes, rather scattered; with feeble ground sculpture except between the eyes; eyes situated at middle of length of head; basal segment of antennae scarcely over one-half as long as head, about as long as distance between them; antennal grooves distinct. *Pronotum* with irregular median band not elevated or canaliculate; punctures moderate, rather sparse but irregularly spaced, not at all serial; without ground sculpture. *Elytra* much larger than pronotum; with dense moderate punctures separated by flattened intervals, not distinctly serial; intervals with indistinct ground sculpture. *Male*, fourth sternite unmodified, fifth with a transverse fovea at middle and a posterior lobe about one-third as broad at base as segment and extending to middle of sixth sternite or middle of seventh, with apex truncate; eighth sternite with a small abrupt rounded emargination. *Female*, all sternites unmodified except for fifth, which has a central smooth area rising to an abrupt semicircular posterior rim. Length, 7½ mm.

Type locality.—Puerto Rico.

Types.—Either in the Hope Museum, Oxford, or the Zoologische Museum, Berlin.

Records.—The following are the records known to me:

Puerto Rico: (Erichson, 1840; Horn, 1885; Bernhauer and Schubert, 1912; Leng and Mutchler, 1914; Wolcott, 1924, 1936), Villalba (Blackwelder station 64), Maricao Forest (Darlington, in M.C.Z.), El Yunque (Darlington, in M.C.Z. and U.S.N.M).

Antigua: (H. E. Box, as Blackwelder stations 444L and 444M).

Guadeloupe: (Bernhauer and Schubert, 1912; Leng and Mutchler, 1914).

Grenada: (Bernhauer and Schubert, 1912; Leng and Mutchler, 1914; British Museum).

South America: COLOMBIA, VENEZUELA, ECUADOR (Bernhauer and Schubert, 1912).

Specimens examined.—I have seen 13 examples in the British Museum, two collected by Dr. Harold E. Box, three from the Museum of Comparative Zoology, and two collected by me on October 12, 1935.

Remarks.—This species differs from the genotype in the following particulars (among others): Much more distinct punctures on head and elytra and much less distinct ground sculpture, shorter basal segment of antennae, coarser punctation of pronotum, and the much larger fovea of the fifth sternite of the male and the smaller emargination of the eighth.

There is at least some doubt of the South American records. I have seen specimens only from Puerto Rico, Antigua, and Grenada and have no direct evidence that it is as widespread a species as is indicated in the Junk Catalog.

My specimens were taken while sifting leaves in a damp gully.

3. BIOCRYPTA TRINITATIS, new species

Description.—Rufopiceous. *Head* with eyes separated from base by about twice their length; basal segment of antennae about two-thirds as long as head, as long as distance between them; antennal grooves distinct; with punctures of various sizes rather sparse; with ground sculpture only at base and apex. *Pronotum* with median smooth area not elevated but set off by fairly regular series of moderate punctures; sparsely and only moderately coarsely punctate; without ground sculpture. *Elytra* larger than pronotum; with dense moderately coarse punctures separated by flattened intervals, not at all serial; without distinct ground sculpture. *Male*, unknown. *Female*, all sternites unmodified except for fifth which has a central smooth area rising to an abrupt semicircular posterior rim. Length, 8 mm.

Type locality.—Trinidad, St. Augustine.

Types.—Holotype, female, in Museum of Comparative Zoology, collected in April 1929 by Dr. P. J. Darlington.

Records.—The following is the only record known to me:

Trinidad: St. Augustine (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the unique type.

Remarks.—This specimen had been confused with *fulvipes* but seems to be very distinct by the sparse punctation. Even an isolated female seems worthy of description in this genus, of which only one species is so far known from South America (Argentina).

I have received no record of the habits of this species.

4. BIOCRYPTA DOMINICANA, new species

Description.—Black, sometimes picescent in part. *Head* with eyes about at middle of length; basal segment of antennae about half as long as head, about as long as distance between them; antennal grooves distinct; with moderate but uneven punctures fairly dense basally but sparse in front; with rather indistinct ground sculpture basally. *Pronotum* with slightly elevated smooth median band set off by punctures only partly in series; with moderate punctures frequently separated by about their diameter; without distinct ground sculpture. *Elytra* much larger than pronotum; with dense but rather small punctures separated by somewhat flattened intervals, not at all serial; without distinct ground sculpture. *Male*, fourth sternite with a large circular fovea; fifth with a still larger circular fovea occupying nearly the entire middle third of the segment; seventh with a narrow oval excision one-third as long as segment, with angles somewhat prolonged, the excision bordered by a thin bead which extends backward as two short spiniform processes between the extended angles; eighth very deeply narrowly emarginate. *Female*, sternites not modified. Length 6½ to 7½ mm.

Type locality.—Dominican Republic, Sánchez.

Types.—Holotype, male, and two paratypes, female, in the Museum of Comparative Zoology; two paratypes, male and female, in the United States National Museum (No. 52504); collected in July 1938 by Dr. P. J. Darlington.

Records.—The following are the records known to me:

Hispaniola: DOMINICAN REPUBLIC, Sánchez (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the five types.

Remarks.—This species is very distinct by the exceptional development of the male characters. The details of the emargination of the eighth sternite are unique among the Cryptobia, and the foveae of the fourth and fifth sternites reach their greatest development in this species. It is, however, a typical member of the genus as herein defined.

I have received no record of its habits.

5. BIOCRYPTA HAITIA, new species

Description.—Rufopiceous, head and pronotum somewhat darker. *Head* with eyes small, separated from base by about four times their diameter, by one and one-half times from apex; basal segment of antennae a little over half as long as head, about as long as distance between them; antennal grooves feeble; with moderately coarse punctures, distinctly umbilicate, dense at base, sparse in front where they are obscured by the dense but irregular ground sculpture. *Pronotum* with irregular impunctate median band not marked by series of punctures; punctures about as on head but less dense and more irregularly placed; without distinct ground sculpture, but with surface throughout minutely uneven. *Elytra* shorter and scarcely wider than pronotum, narrower than the abdomen, closely appressed; with punctures about as coarse as on head but denser and less regularly shaped, not at all serial; ground sculpture as on pronotum. *Male*, with a small circular pale area (scarcely a fovea) at center of posterior margin of fifth sternite; seventh with punctation and vestiture finer and denser along middle posteriorly; eighth with a narrow attenuated emargination, a little deeper than wide at apex, at least three times as deep as wide at middle. *Female*, sternites unmodified. Length, 7½ mm.

Type locality.—Haiti, Morne La Hotte, 5,000 to 7,800 feet.

Types.—Holotype, male, in Museum of Comparative Zoology; paratype, female, in United States National Museum (No. 52506); collected on October 16–17, 1934 by Dr. P. J. Darlington.

Records.—The following is the only record known to me:

Hispaniola: Haiti, Morne La Hotte (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the two types.

Remarks.—This species has the aspect of a subterranean insect. It may be distinguished by the peculiar male characters which are unique in the Cryptobia of the West Indies.

It was taken at a high altitude (for the West Indies), probably under ground cover.

6. BIOCRYPTA CUBENSIS, new species

Description.—Rufopiceous, the head and pronotum sometimes less rufescent. *Head* with eyes small, separated from base by over four times their diameter, by two times from apex; basal segment of antenna three-fifths as long as head, a little longer than distance between them; antennal grooves feeble; with moderately coarse but sparse and sometimes umbilicate punctures interspersed with minute punctures; with dense ground sculpture throughout (obsolescent in small area of vertex between the eyes). *Pronotum* with irregular impunctate median band marked by punctures that are only partly serial; punctures a little less coarse than on head, sparse and seldom serial; with fine but distinct ground sculpture throughout. *Elytra* shorter and scarcely wider than pronotum, narrower than the abdomen, closely appressed; with punctures about as coarse as on head but denser and less regularly shaped, not at all serial; without distinct ground sculpture, but surface strongly coriaceous. *Male*, fifth sternite with a small median oval fovea, posterior fifth of margin prolonged in a narrow abrupt but tapering lobe which extends to middle of seventh; eighth not distinctly emarginate. *Female*, fifth sternite with a central smooth area rising to an abrupt semicircular posterior rim. Length 8½ mm.

Type locality.—Cuba, south side of Pico Turquino, in province of Oriente, elevation 3,000 to 5,000 feet.

Types.—Holotype, male, and paratype, female, in Museum of Comparative Zoology; two paratypes, female, in United States National Museum (No. 52509); collected in June 1936 by Dr. P. J. Darlington.

Records.—The following is the only record known to me:

Cuba: Pico Turquino (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the four types.

Remarks.—This is one of the subterranean type, which may be distinguished readily by the sculpture as well as by the male characters. In the latter it is most like *jamaicensis*, which has the sternal lobe similar but the eighth sternite emarginate. (The only male of *cubensis* I have seen has the apex of the eighth sternite somewhat chipped away. Enough remains to lead me to believe that it was not emarginate as in *jamaicensis.*)

These specimens were taken at considerable elevations, probably under ground cover.

7. BIOCRYPTA DENSA, new species

Description.—Rufocastaneous, the head and pronotum somewhat picescent. *Head* with eyes small, at about four times their length from base, and about two times from apex; basal segment of antennae about three-fifths as long as head, scarcely longer than distance between them; antennal grooves feeble; with uneven but not very coarse punctures, each declivous or excavated in front, not distinctly umbilicate, sparse in front, posteriorly separated by one to two times their diameter; with fine but dense ground sculpture throughout. *Pronotum* with irregular impunctate median band not marked by definite series, vaguely foveate near base; punctures much less coarse than on head but umbilicate and seldom at all serial; with fine but dense ground sculpture throughout. *Elytra* shorter and scarcely wider than pronotum, narrower than the abdomen, closely appressed; punctures about as coarse as on head but often indistinct and sometime coalescent, surface both coarsely and finely coriaceous but without other ground sculpture. *Male*, fifth sternite with a small oval median anterior fovea, the middle third of posterior margin abruptly prolonged in a rectangular lobe, which extends over base of seventh; eighth with a small rounded notch preceded by an indefinite triangular smooth area (gutter). *Female*, unknown. Length, 7½ mm.

Type locality.—Haiti, La Visité and vicinity in the La Selle Range, 5,000 to 7,000 feet elevation.

Types.—Holotype, male, in Museum of Comparative Zoology, collected on September 16–23, 1934, by Dr. P. J. Darlington.

Records.—The following is the only record known to me:

Hispaniola: HAITI, La Visité (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the unique type.

Remarks.—This species is very distinct by its even fine ground sculpture. It is similar to *jamaicensis* in the male characters except that the lobe is broader and not tapering to the truncate apex.

I have received no record of its habits except that it was taken at a considerable altitude, probably under ground cover.

8. BIOCRYPTA JAMAICENSIS, new species

Description.—Rufocastaneous, forepart sometimes piceseent. *Head* with eyes small, separated from base by nearly four times their diameter, by two times from apex; basal segment of antenna nearly three-fifths as long as head, distinctly longer than distance between them; the antennal grooves feeble; very irregularly punctured. some punctures fairly coarse, dense posteriorly but only a few isolated in front; without distinct ground sculpture but vaguely coriaceous, more strongly in front. *Pronotum* with irregular impunctate median band marked by very irregular series of punctures; punctures much as on head; without distinct ground sculpture but surface irregularly coriaceous. *Elytra* shorter and scarcely wider than pronotum, narrower than the abdomen, closely appressed; with punctures a little coarser than on head but sometimes united irregularly and separated by irregular convex intervals; without distinct ground sculpture. *Male*, without trace of fovea on fourth sternite; with a moderate transversely oval fovea on fifth, and with a narrow triangular lobe extending to apex of sixth sternite; sixth and seventh without vestiture along middle; eighth with a small rounded triangular emargination, about as deep as wide. *Female*, fifth sternite with a subbasal median smooth area rising to an abrupt semicircular posterior rim. Length, 8 to 9 mm.

Type locality.—Jamaica, main range of Blue Mountains at an elevation of 5,000 to 7,000 feet.

Types.—Holotype, male, and paratype, female, in the Museum of Comparative Zoology; two paratypes, male, in the United States National Museum (No. 52507); all collected between August 17 and 19, 1934, by Dr. P. J. Darlington.

Records.—The following is the only record known to me:

Jamaica: Blue Mountains (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the four types.

Remarks.—This is likewise a subterranean form in appearance. It is readily distinguished by the characters in the key as well as by the male characters. This is the only species so far taken on Jamaica but is similar in many respects to the mountain species of Cuba and Hispaniola.

I have received no record of its habits.

9. BIOCRYPTA HISPANIOLA, new species

Description.—Rufocastaneous, somewhat picescent in front. *Head* somewhat enlarged behind the eyes; eyes minute, separated from base by eight times their diameter, by nearly three times from the apex; basal segment of antenna unusually slender and curved, about half as long as head, and as long as distance between them; antennal grooves very feeble; with moderately fine anteriorly directed punctures separated by one to two times their diameter; with dense but very fine and rather indistinct ground sculpture. *Pronotum* with vague impunctate median band not outlined by series of punctures; punctures a little finer than on head, usually separated by about twice their diameter; surface smooth, without ground sculpture. *Elytra* slightly shorter and scarcely wider than pronotum, narrower than abdomen, closely appressed; conjointly deeply emarginate behind; punctures obsolescent, sometimes vaguely submuricate; with dense but indistinct ground sculpture. *Male*, with a circular fovea in middle sixth along apical margin of fourth and fifth sternite, sixth and seventh transversely impressed and smooth before base, eighth elongate but apex deeply incised, the slit preceded by a narrow groove. *Female*, sternites not modified. Length, 7 to 10 mm.

Type locality.—Hispaniola, Loma Rucilla and vicinity in the Dominican Republic; elevation 5,000 to 8,000 feet.

Types.—Holotype and 13 paratypes, male, and 21 paratypes, female, in the Museum of Comparative Zoology; 27 paratypes, male and female, in the United States National Museum (No. 52505); collected in June 1938 by Dr. P. J. Darlington.

Records.—The following are the records known to me:

Hispaniola: DOMINICAN REPUBLIC, Loma Rucilla (Darlington, in M.C.Z. and U.S.N.M.), Valle Nuevo (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the 62 types.

Remarks.—This is a very distinct species because of the size of the eye, the shape of the head and basal antennal segment, the sculpture, and the male characters. Very little variation is exhibited by the fine series examined.

The specimens were taken in cloud forest presumably under ground cover.

XLVIII. Genus OPHITES Erichson

Ophites ERICHSON, 1840, p. 627.

Genotype.—*O. versatilis* Erichson (designated by Duponchel, 1841, not Blackwelder, 1939a).

Diagnosis.—At least part of integuments punctate, sometimes with ground sculpture; antennae anteriorly flexile, strongly geniculate, basal segment much elongate; labrum bidenticulate; maxillary palpus elongate, fourth segment globose and acuminate; gular sutures united; neck less than one-fourth as wide as head, nearly half as long as head; prosternum longitudinally impressed before each coxa, not dilated beneath them; hypomera broadly lobed over base of coxae; anterior coxal cavities open behind; front coxae large, exserted; elytra without distinct pleural fold; middle coxal cavities confluent; posterior coxae contiguous, "conical"; first and second abdominal sternites absent; subbasal sternites of male unmodified; basal half of anterior tibia without concavity but with area of diagonal ctenidia; apex of posterior tibia without distinct ctenidium on either side.

Remarks.—This is a very distinct genus because of the remarkable shape of the head. It is unusual also in the arrangement of the sculpture, which is almost restricted to the head, while only the elytra are densely punctate.

The genus is neotropical. Only one species has been found in our region and that in Trinidad.

1. OPHITES BUGNIONI Fauvel

Ophites bugnioni FAUVEL, 1901, p. 80.—BERNHAUER and SCHUBERT, 1912, p. 277.

Description.—Black, apex of elytra and abdomen and appendages rufotestaceous. *Head* abruptly and evenly narrowed from eyes to neck; with a few scattered punctures obscured by the dense sculpture, which is composed of minute setiferous punctures. *Pronotum* nearly twice as long as broad, strongly narrowed in front, sides a little emarginate behind middle; with a few moderate umbilicate punctures about basal angles, two discal series and others obsolescent; smooth, shining. *Elytra* rectangular, one-half wider than pronotum, the humeral angles tuberculate; with coarse submuricate punctures more or less serial especially near the suture; without ground sculpture. *Abdomen* very densely and minutely submuricately punctate (appearing like sculpture). *Male*, eighth sternite with a U-shaped excision nearly half as deep as visible length of segment, two-thirds as wide as deep, the apices rounded. *Female*, eighth sternite broadly and very feebly emarginate. Length, 10 mm.

Type locality.—"Colombie: Palomino."

Types.—Presumably in the collection of Blanche Rancin, Caën, France.

Records.—The following are the records known to me:

Trinidad: St. Augustine (Darlington, in M.C.Z. and U.S.N.M.), Four Roads (Thaxter, in M.C.Z.).

South America: COLOMBIA (Fauvel, 1901).

Specimens examined.—I have seen 24 examples from the Museum of Comparative Zoology, of which some will be deposited in the United States National Museum.

Remarks.—This is one of the most easily recognized staphylinids in our region. It is, of course, a member of the South American fauna and is believed to be Fauvel's species, although I have not been able to compare it with other specimens of that species. It differs widely in punctation and sculpture from *O. versatilis* Erichson. Dr. Darlington collected this series from deep grass along a pond.

XLIX. SUNIOPHACIS, new genus

Genotype.—*S. concolor* Blackwelder (designated here).

Diagnosis.—Body rather short and stout; antennae moderately filiform, not geniculate; labrum without teeth, truncate, narrowly emarginate at center; maxillary palpi long, fourth segment minute, pubescent; gular sutures united; prothorax nearly circular, not much prolonged anteriorly at middle; prosternum expanded under coxae nearly to hypomera but not connate with the latter; anterior coxal cavities closed behind (by the sternum beneath the coxae rather than by the hypomera); front coxae conical, prominent; middle coxal cavities confluent; posterior coxae conical, approximate; abdomen margined, somewhat contracted at base; first and second sternites absent; in general, eighth sternite feebly emarginate in males, feebly prolonged in females; fourth segment of tarsus lobed beneath.

Remarks.—This genus appears to be distinguishable from *Stilosaurus*, *Suniocharis*, *Stamnoderus*, *Suniosaurus*, and *Stiliphacis* by the characters mentioned in the key. The genera in this complex are not yet sufficiently understood to make the generic limits certain, but so far as the West Indian species are concerned the genera are readily recognized.

Of this genus I have seen 1 example in the Museum of Comparative Zoology, 1 in Dr. Cameron's collection, and 12 in the United States National Museum. These I divide into three rather feebly differentiated species, of which two are described as new.

KEY TO WEST INDIAN SPECIES OF SUNIOPHACIS

1. Pronotum with umbilicate punctures united in distinct longitudinal grooves. 3. hubbardi
   Pronotum with umbilicate punctures irregular, not in even rows________ 2
2. Elytra entirely testaceous____ 1. concolor
   Elytra in part piceous or infuscate__________________________ 2. thoracicus

1. SUNIOPHACIS CONCOLOR, new species

Description.—Rufopiceous, elytra testaceous. *Head* moderately large, suborbicular, almost as wide as elytra; eyes moderate, not very prominent; sides behind eyes a little elongate but evenly rounded to base; punctures dense and umbilicate but feeble and shallow, with scaly sculpture on intervals and more generally in front; labrum rounded at sides and in front on either side of a shallow emargination. *Pronotum* one-eleventh longer than wide, over five-eighths as wide as elytra, widest at anterior third, strongly narrowed in front to narrow apex, moderately behind to rounded angles; sides finely tuberculate; more strongly umbilicately punctate than head but with punctures generally united in irregular longitudinal rows; without ground sculpture except vaguely on the intervals. *Prosternum* not at all longitudinally carinate on disk. *Elytra* almost as wide as long, about two-fifths longer than pronotum; with punctures rather fine but depressed so as to appear larger, surface uneven. *Abdomen* rather finely but not densely punctate; with rather long pubescence. *Eighth sternite* broadly and feebly lobed at apex. Length, 2 mm.

Type locality.—Jamaica.

Types.—Holotype and one paratype, U.S.N.M. No. 52389, collected by H. G. Hubbard.

Records.—The following is the only record known to me:

Jamaica: (Hubbard, in U.S.N.M.).

Specimens examined.—I have seen only the two types.

Remarks.—These specimens seem to be distinct from *thoracicus* though rather similar to that species. Again I can find no evidence of sex in the two specimens before me.

I have no record of the habits of this species.

2. SUNIOPHACIS THORACICUS (Cameron)

Stilicopsis thoracicus CAMERON, 1923, p. 398.—SCHEERPELTZ, 1933, p. 1237.—BLACKWELDER, 1939, p. 115.

Monista antillana BIERIG, MS.

Description.—Black; elytra rufotestaceous, each with a black median band from lateral margin nearly to suture; apex of abdomen obscurely testaceous. *Head* large, subquadrate, rounded behind eyes which are small; outer antennal segments transverse; punctures moderately close, superficial and umbilicate; intervals distinctly coriaceous. *Pronotum* scarcely longer than broad, widest before middle, anterior angles rounded, sides obliquely contracted in front to narrow neck, posteriorly less strongly contracted to rounded posterior angles; shining at middle, with trace of midline; sculpture distinctly coriaceous; with a few obsolete umbilicate punctures sparingly distributed and indistinct. *Prosternum* with only a trace of a longitudinal carina on disk. *Elytra* a little longer and distinctly wider than pronotum, almost as wide as head, longer than broad; shining, moderately finely and moderately closely punctate; finely pubescent. *Abdomen* narrowed at base and apex, extremely finely and moderately closely punctate throughout and very finely pubescent. *Male*, unknown. Length, 2 mm. (From Cameron.)

Type locality.—Haiti.

Types.—Unique type in collection of Dr. Cameron. (A "cotype" of *antillana* is in the United States National Museum.)

Records.—The following are the records known to me:

Cuba: Cayamas (Schwarz, in U.S.N.M.), Habana (Bierig, in U.S.N.M. as *antillana*).
Hispaniola: Haiti (Cameron, 1923).

Specimens examined.—I have seen the unique type, which I examined briefly in Dr. Cameron's collection, and nine examples in the United States National Museum.

Remarks.—The examples from Cuba have not been compared with the type but differ from the original description only in the paler color of each part. This might well be due to differences in lighting or to differences in personal judgment. In my specimens the labrum is rounded at the sides and feebly so in front on each side, with a very small acuminate notch at center. I do not find any evidence of sex in my examples.

I have no record of the habits of this species.

3. SUNIOPHACIS HUBBARDI, new species

Description.—Piceous, apical third of elytra testaceous. *Head* suborbicular, eight-ninths as wide as elytra; eyes moderately large, not very prominent, sides behind the eyes somewhat elongate, evenly rounded; labrum rounded at sides and in front on either side of a small shallow notch. *Pronotum* scarcely as wide as long, over three-fourths as wide as head, widest at anterior third; strongly narrowed in front to small neck, moderately narrowed posteriorly to rounded basal angles; sides finely tuberculate; without midline; with distinct umbilicate punctures almost always united in long grooves; intervals with distinct ground sculpture. *Prosternum* not at all longitudinally carinate on disk. *Elytra* scarcely longer than wide, two-fifths wider than pronotum; punctures moderately fine, feebly submuricate. *Abdomen* very finely muricately punctate; without ground sculpture but with rather long pubescence. *Eighth sternite* unmodified. Length, 2¾ mm.

Type locality.—Jamaica.

Types.—Holotype, U.S.N.M. No. 52392, collected by H. G. Hubbard.

Records.—The following are the records known to me:

Jamaica: (Hubbard, in U.S.N.M.), Kingston (Darlington, in M.C.Z.).
Antigua: (Weber, in M.C.Z.).

Specimens examined.—I have seen only the holotype and two examples in the Museum of Comparative Zoology.

Remarks.—The description of the elytral coloring given above should be modified as follows: A median black band from margin nearly to suture is black, the apical third is testaceous, the remaining part at base and along suture is so darkly piceous as to be scarcely distinguishable from the black band. It appears to me to be a coloration very similar to that described by Cameron for *thoracicus*, but there seems to be ample distinction in the sculpture of the pronotum.

The two specimens in the Museum of Comparative Zoology differ from the type in having a much lighter color with the elytral spot much clearer. They do not seem to differ otherwise.

I have no record of the habits of this species.

L. STILOSAURUS, new genus

Genotype.—*S. rulomus* Blackwelder (designated here).

Diagnosis.—Body moderately slender, strongly constricted; antennae filiform, not geniculate; labrum enlarged at middle, bidentate with additional angulations; maxillary palpus long, third segment enlarged, fourth minute; gular sutures united; prothorax slightly oval, not much prolonged at middle in front; prosternum expanded under coxae as far as but not connate with the hypomera; anterior coxal cavities closed behind (by the sternum beneath the coxae rather than by the hypomera); front coxae conical, prominent; middle coxal cavities confluent; posterior coxae conical, approximate; abdomen margined; somewhat contracted toward base; first and second sternites absent; in general, eighth sternite feebly emarginate in males, feebly prolonged or rounded in females; fourth segment of tarsus lobed beneath.

Remarks.—This genus is readily recognizable by the absence both of umbilicate punctures and of dense coarse sculpture. It usually has fine ground sculpture and sometimes shows traces of umbilicate punctures, as if they were obsolescent.

I have seen 11 examples belonging to three species, all of which are herein described as new.

KEY TO WEST INDIAN SPECIES OF STILOSAURUS

1. Head with epistomal suture and anterior part of coronal suture distinct. 3. coronalis
   Head without raised line marking epistomal and anterior part of coronal sutures ---- 2
2. Anterior part of pronotal midline marked by a raised line in a depression. 2. lineatus
   Anterior part of pronotal midline depressed but without raised line. 1. rulomus

1. STILOSAURUS RULOMUS, new species

Description.—Rufopiceous to castaneous. *Head* moderately large, semicircular behind, quadrate in front, about as wide as elytra; eyes moderately large, prominent; labrum with two acutely triangular median teeth adjacent at base but without other denticles; impunctate but with dense fine ground sculpture and sparse rather indistinct round tubercles; without elevated lines marking sutures on vertex. *Pronotum* slightly longer than wide, as wide as head, widest just before middle, sides evenly rounded posteriorly, base not distinct; with three large setae along each side; midline feebly depressed and without raised line; with sculpture and tuberculi more distinct than on head. *Elytra* one-fourth wider than long, four-fifths as long as pronotum; with very coarse punctures somewhat obscured by the uneven surface. *Abdomen* with punctures indistinct; without distinct ground sculpture. *Male*, seventh sternite feebly emarginate throughout; eighth with a broad emargination at least four times as wide as deep. *Female*, sternites not modified. Length, 2½ mm.

Type locality.—Dominican Republic, cloudforest in the vicinity of Valle Nuevo; elevation about 6,000 feet.

Types.—Holotype, male, and two paratypes in the Museum of Comparative Zoology; two paratypes in the United States National Museum (No. 52520); collected in August 1938 by Dr. P. J. Darlington.

Records.—The following is the only record known to me:

Hispaniola: DOMINICAN REPUBLIC, Valle Nuevo (Darlington, in M.C.Z. and U.S.N.M.)

Specimens examined.—I have seen only the five types.

Remarks.—This species may be distinguished by its lack of raised lines on the head and pronotum. It is also unique in the distinctness of the tuberculi.

I have received no record of its habits except that it was taken in cloudforest.

2. STILOSAURUS LINEATUS, new species

Description.—Castaneous or testaceocastaneous. *Head* moderately large, semicircular behind, quadrate in front, about as wide as elytra; eyes moderately large, prominent; labrum with two acutely triangular median teeth adjacent at base and flanked by small angulations but no other denticles; without punctures or distinct ground sculpture but with indistinct tuberculi basally and laterally only, surface rather uneven; without elevated lines marking sutures on vertex. *Pronotum* one-sixth longer than wide, not quite as wide as head, widest near middle, sides rather feebly arcuate and rounded into base; with two to four large setae along each side; midline feebly impressed in apical half and marked by a fine smooth raised line; with dense ground sculpture, and with tuberculi a little more distinct than on head. *Elytra* two-fifths wider than long, five-sevenths as long as pronotum; with coarse punctures almost completely obscured by unevenness of the surface. *Abdomen* without distinct punctures but with irregular pitted sculpture. *Male*, seventh sternite very broadly evenly and feebly emarginate; eighth same as seventh. *Female*, sternites unmodified. Length, 2¼ mm.

Type locality.—Puerto Rico, El Yunque Peak; elevation about 3,000 feet.

Types.—Holotype, male, and paratype, female, in the Museum of Comparative Zoology; paratype, female, in the United States National Museum (No. 52521); collected in May 1938 by Dr. P. J. Darlington.

Records.—The following is the only record known to me:

Puerto Rico: El Yunque (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the three types.

Remarks.—This species may be known by its reduced elytra and the raised line on the pronotum.

I have received no record of its habits.

3. STILOSAURUS CORONALIS, new species

Description.—Testaceous. *Head* moderately large, suborbicular, almost as wide as elytra; eyes moderately large, prominent; evenly rounded behind eyes; without distinct punctures or sculpture but with indistinct tuberculi basally and laterally; with a fine raised line marking the position of the epistomal suture between the front of the eyes, and another marking the anterior fifth of the coronal suture; labrum with median lobe forming two very blunt triangular teeth flanked by a pair of obtuse angulations. *Pronotum* suborbicular, scarcely wider than long, five-sixths as wide as head, widest near middle, evenly rounded posteriorly but sides becoming straight near apex; sides with about three large setae; with a distinct raised midline through most of the length; tuberculi larger and more conspicuous than on the head but obscured by the dense fine scaly ground sculpture. *Elytra* three-fourths as long as wide, nine-tenths as long as pronotum; with moderate punctures obscured by the uneven surface. *Abdomen* exceedingly minutely punctate or sculptured; with rather dense pubescence. *Male*, unknown. *Female*, sternites rounded or broadly lobed. Length, 1⅔ mm.

Type locality.—Cuba, Cayamas, 15 miles west-northwest of Cienfuegos, Province of Santa Clara.

Types.—Holotype and one paratype, females, U.S.N.M. No. 52390, collected by E. A. Schwarz.

Records.—The following are the records known to me:

Cuba: Cayamas (Schwarz, in U.S.N.M.), Soledad (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the two types and one example from the Museum of Comparative Zoology.

Remarks.—This species is unique in the genus by having fine elevated lines marking the epistomal and coronal sutures. This condition is known to occur among other Staphylinidae only in the subfamily Tachyporinae and one or two other Paederinae.

I have no record of the habits of this species.

LI. Genus STAMNODERUS Sharp

Stamnoderus Sharp, 1886, p. 607.

Genotype.—*S. godmani* Sharp (designated by Blackwelder, 1939).

Diagnosis.—Body moderately slender, strongly constricted; antennae posteriorly flexile, not strongly geniculate, basal segment not very much elongate, segments slender, swollen anteriorly toward apex; eyes prominent; labrum large, produced at middle, without denticles; fourth segment of maxillary palpus very small, subulate; gular sutures united; neck one-fifth as wide as head or less; prothorax narrowly prolonged in front; prosternum carinate along middle throughout, prolonged posteriorly between coxae and laterally beneath them, connate with edges of hypomera; hypomera not prolonged behind anterior coxal cavities which are entirely open behind above but entirely closed by prosternal processes; front coxae very large, exserted; middle coxal cavities confluent; posterior coxae contiguous, "conical"; first and second abdominal sternites absent, third carinate at base, seventh sometimes emarginate in male, eighth emarginate in male; tarsi 5-segmented, fourth segment lobed beneath.

Remarks.—This is one of the easiest of all our Paederini genera to recognize because of its prolonged prothorax. It is known only from temperate and tropical America.

The record of *Stamnoderus sallaei* Sharp from Jamaica by Gowdey, 1926, is probably a misidentification. Until the specimens can be reexamined, it must be regarded as a doubtful record.

I have seen 151 examples of this genus and assign them to four species, of which one is described as new.

KEY TO WEST INDIAN SPECIES OF STAMNODERUS

1.	Clypeus smooth or at most with obsolete punctation	2. labeo
	Clypeus with distinct punctures or ground sculpture	2
2.	Punctation of head obsolete posteriorly	3
	Punctation of head distinct throughout	1. varians
3.	Coronal suture marked by a raised line	3. bernhaueri
	Coronal suture entirely unmarked	4. cameroni

1. STAMNODERUS VARIANS Cameron

Stamnoderus varians Cameron, 1913, p. 335.—Leng and Mutchler, 1917, p. 198.—Scheerpeltz, 1933, p. 1237.—Blackwelder, 1939a, p. 115.

Description.—Piceous, apex of elytra and abdomen transparent rufous. *Head* without trace of coronal or epistomal sutures; clypeus with strong umbilicate punctures as on vertex; labrum transverse with a broad median anterior lobe. *Pronotum* with punctures obsolescent, not distinctly umbilicate; with only a feeble flat midline; no ground sculpture; lateral impressions moderate but distinct. *Elytra* slightly shorter than long; sides evenly arcuate, not expanded posteriorly; with moderately coarse and distinct punctures, generally separated by less than their diameter by rather flat intervals. *Abdomen* very finely and not distinctly submuricately punctate. *Male*, eighth sternite with a shallow emargination. *Female*, sternites not modified. Length, 2½ to 3½ mm.

Type locality.—Grenada, Balthazar.

Types.—Twelve examples (one labeled type) in the British Museum).

Records.—The following are the records known to me:

St. Vincent: (Cameron, 1913; Leng and Mutchler, 1917).
Grenada: (Cameron, 1913; Leng and Mutchler, 1917).

Specimens examined.—I have seen 56 examples (including the type) in the British Museum and 6 in the collection of Dr. Cameron. One example was borrowed from the British Museum for further study.

Remarks.—This species seems to be distinct from the others of our region by the strength of the umbilicate punctures of the head. It is also distinct in coloration.

I find no record of its habits.

2. STAMNODERUS LABEO (Erichson)

Sunius labeo ERICHSON, 1840, p. 648.—SHARP, 1886, p. 607.—BLACKWELDER, 1939a, p. 115.

Stamnoderus labeo (Erichson) SHARP, 1886, p. 607.—BERNHAUER and SCHUBERT, 1912, p. 220.—CAMERON, 1913b, p. 334.—LENG and MUTCHLER, 1914, p. 404.—BLACKWELDER, 1939a, p. 115.

Stamnoderus delauneyi FLEUTIAUX and SALLÉ, 1889, p. 380, pl. 7, fig. 7.—BERN-1912, p. 220.—CAMERON, 1913b, p. 334—LENG and MUTCHLER, 1914, p. 404.—BLACKWELDER, 1939a, p. 115.

Stamnoderus apicalis CAMERON, 1913b, p. 335.—LENG and MUTCHLER, 1917, p. 198.—SCHEERPELTZ, 1933, p. 1237.—BLACKWELDER, 1939a, p. 115.

Stamnoderus incarenatus BIERIG, 1936, pp. 140, 142, 143, pl. 6, figs. 8–10.

Stamnoderus caribacus BIERIG, 1936, pp. 141, 142, pl. 6, figs. 5–7.

Stamnoderus truncatus BIERIG, 1936, p. 142, pl. 6, figs. 11–15.

Description.—Rufotestaceous, elytra and abdomen testaceous. *Head* without trace of coronal or epistomal sutures; clypeus without distinct punctures but sparsely pubescent; vertex with obsolete punctures vaguely umbilicate; labrum transverse with a large broad median anterior lobe. *Pronotum* with only a trace of midline; punctures obsolete, vaguely umbilicate; sparsely pubescent; lateral impressions well defined. *Elytra* as wide as long, enlarged to apical fourth; with punctures rather dense but indefinite, intervals irregularly convex. *Abdomen* very finely, more or less submuricately punctate. *Male*, eighth sternite very broadly and feebly emarginate; ninth tergite subrectangularly emarginate, declivous, and with four black hairs at each side. *Female*, eighth sternite arcuate posteriorly; ninth tergite deeply triangularly emarginate, with three or four black hairs at each side. Length, 2½ to 3½ mm.

Type locality.—"Americae ins. St. Johannis" (=St. John in the Virgin Islands of the U. S. A.). Of *delauneyi*, Guadeloupe, Camp-Jacob and Trois Rivieres; of *apicalis*, Jamaica, Hope River district; of *incarenatus*, *caribaeus*, and *truncatus*, Cuba.

Types.—In either the Hope Museum, Oxford, or the Zoologische Museum, Berlin. Of *delauneyi*, possibly in the Musée d'Histoire Naturelle National, Paris; of *apicalis*, in collection of Dr. Cameron; of *incarenatus*, *caribaeus*, and *truncatus*, in collection of Alexander Bierig, and "cotypes" in the United States National Museum (Nos. 52721, 52722, 52720) or the collection of R. E. Blackwelder.

Records.—The following are the records known to me:

Cuba: Cayamas (Schwarz, in United States National Museum), Sierra Bonilla (Bierig, 1936, as *incarenatus*), Sitio Perdido (Bierig, 1936, as *incarenatus*), Sierra del Rosario (Bierig, 1936, as *incarenatus, truncatus*, and *caribaeus*), Sierra del Grillo (Bierig, 1936, as *caribaeus*), Aspiro, El Sabicu, and El Rangel (Bierig. 1936, as *truncatus*), Buenos Aires in Trinidad Mountains (Darlington, in M.C.Z. and U.S.N.M.), Soledad (Darlington and Leavitt, in M.C.Z. and U.S.N.M.), Baracoa (Darlington, in M.C.Z.).

Isle of Pines: Sierra de las Casas (Bierig, 1936, as *caribaeus*).

Jamaica: (Leng and Mutchler, 1917, as *apicalis*), Hope River (Cameron, 1913, as *apicalis*), Blue Mountains (Darlington, in M.C.Z. and U.S.N.M.).

Hispaniola: HAITI, Port-au-Prince (Darlington, in M.C.Z.), Ennery (Darlington, in M.C.Z. and U.S.N.M.); DOMINICAN REPUBLIC, Sanchez (Darlington, in M.C.Z. and U.S.N.M.), Puerto Plata (Darlington, in M.C.Z. and U.S.N.M.).

Puerto Rico: Villalba (Blackwelder station 64), El Yunque (Darlington, in M.C.Z.)

St. John: (Erichson, 1840).

Guadeloupe: Basse Terre (Fleutiaux and Sallé, 1889, as *delauneyi;* Leng and Mutchler, 1914; Blackwelder station 81).

Dominica: (Blackwelder station 244A).

Specimens examined.—I have examined 8 examples (including the type of *apicalis*) in the collection of Dr. Cameron, 18 in the British Museum, 28 from the Museum of Comparative Zoology, 9 in the United States National Museum, and 15 collected by me in 1935-37.

Remarks.—Although I have not compared any of my specimens directly with the type of *apicalis*, they differ in no way from the original description except to show a slight variability and indicate a wide range. The examples from Dominica and Guadeloupe seem to fit perfectly the description of *delauneyi* but also are identical with Puerto Rican examples identified as *labeo* Erichson. I have therefore united the three species under the oldest name.

Sr. Bierig has kindly sent "cotypes" of his three Cuban species. I find it possible to distinguish the three specimens when considered alone, but the differences are duplicated in several of my series of *labeo* from other islands and from Cayamas, Cuba. I am forced to conclude that these are merely extremes of a somewhat variable species. These conclusions might be changed by the examination of large series of these staphylinids, but at present I find insufficient evidence to justify keeping them separate.

I have collected this species only under leaves, either in rain-forest or in sheltered gullies.

3. STAMNODERUS BERNHAUERI Cameron

Stamnoderus bernhaueri Cameron, 1913b, pp. 333, 334.—Leng and Mutchler, 1917, p. 198.—Scheerpeltz, 1933, p. 1237.—Bierig, 1936, p. 140.—Blackwelder, 1939a, p. 115.

Stamnoderus dissimilis Cameron, 1913b, p. 334.—Leng and Mutchler, 1917, p. 198.—Scheerpeltz, 1933, p. 1237.—Bierig, 1936, p. 140.—Blackwelder, 1939a, p. 115.

Description.—Rufotestaceous, elytra and abdomen generally testaceous. *Head* with a distinct raised line along the coronal (or epicranial) suture; epistomal sutures not marked except by irregular depressions; clypeus with dense umbilicate punctures, but vertex nearly smooth; labrum transverse with a large broad median anterior lobe. *Pronotum* with distinct finely raised midline, except at base; punctures exceedingly fine and situated on small rounded tuberculi, not very distinct; without ground sculpture; lateral impressions rather feeble; sometimes with a more or less well-defined depression at middle of base. *Elytra* as wide as long, enlarged to apical third; with rather coarse and distinct punctures separated by about their diameter. *Abdomen* finely and more or less submuricately punctate. *Male*, seventh sternite shallowly but rather abruptly emarginate at middle; eighth similarly but twice as deeply emarginate; ninth tergite truncate with angles feebly prolonged. *Female*, eighth sternite broadly expanded posteriorly. Length, 3½ mm.

Type locality.—Jamaica, Hope River district (for both names).

Types.—One type and one other specimen in the collection of Dr. Cameron. The unique type of *dissimilis* is in the same collection.

Records.—The following are the records known to me:

Jamaica: (Leng and Mutchler, 1917; Bierig, 1936; Hubbard, in U.S.N.M.), Hope River (Cameron, 1913, for both), Kingston (Blackwelder station 381), Moneague (Darlington, in M.C.Z.), Blue Mountains (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen three examples in Dr. Cameron's collection (including both the types), four from the Museum of Comparative Zoology, one in the United States National Museum, and three collected by me during 1935–37.

Remarks.—I have been unable to separate these two species even by the differential characters given by Dr. Cameron. These characters all refer to structures or conditions that vary even among the four examples now before me. The fact that the types were taken at the same place and apparently represent opposite sexes when considered with the variation shown by my small series appears to indicate unavoidably that the two names represent just one variable species. It is interesting to note here that the other species of this genus from our region are also variable and cannot be separated by color or any character that shows variation within a single series.

My specimens were taken flying at dusk or found incidentally in the net while taking fireflies at night in tall brush.

4. STAMNODERUS CAMERONI, new species

Description.—Rufotestaceous, the head and pronotum sometimes a little darker than the elytra. *Head* without raised lines along coronal suture; epistomal suture not marked except by irregular depressions; clypeus with rather feeble punctures, not distinctly umbilicate, becoming obsolete on the vertex; labrum transverse with a large broad median anterior lobe. *Pronotum* with only a trace of midline; punctured as clypeus; without ground sculpture; lateral impressions feeble; with an irregular depression at middle of base. *Elytra* one-ninth longer than wide, nearly parallel; with rather coarse and distinct punctures separated by nearly their diameter. *Abdomen* finely and densely submuricately punctate. *Male*, seventh sternite broadly feebly emarginate; eighth with a broadly triangular emargination, about eight times as wide as deep. *Female*, sternites not modified. Length, 3 to 4 mm.

Type locality.—Dominican Republic, San José de las Matas; elevation 1,000 to 2,000 feet.

Types.—Holotype, male, and five paratypes in the Museum of Comparative Zoology; four paratypes in the United States National Museum (No. 52518); collected in July 1938 by Dr. P. J. Darlington.

Records.—The following are the records known to me:

Hispaniola: HAITI, Port-au-Prince (Darlington, in M.C.Z.); DOMINICAN REPUBLIC, Villa Altagracia (Darlington, in M.C.Z.), Puerto Plata (Darlington, in M.C.Z. and U.S.N.M.), San José de las Matas (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the 10 types.

Remarks.—This species is very similar to *bernhaueri* but differs in the absence of the raised coronal line and the less distinctly umbilicate punctures.

I have received no record of its habits.

LII. Genus STILIPHACIS Bierig

Stiliphacis Bierig, 1938b, p. 142.

Genotype.—*S. occipitalis* Bierig (original designation and monobasic).

Diagnosis.—Body moderately stout; antennae moderately slender, not geniculate; labrum with two large median teeth and sometimes two minute additional ones; maxillary palpus long, third segment enlarged, fourth minute, pubescent; gular sutures united; prothorax nearly circular, not much prolonged anteriorly at middle; prosternum expanded under coxae nearly to hypomera but not connate with the latter; anterior coxal cavities closed behind (by the sternum beneath the coxae rather than by the hypomera); front coxae large, prominent; middle coxal cavities confluent; posterior coxae "conical," approximate; abdomen margined, somewhat contracted at base; first and second sternite absent; in general, eighth sternite emarginate in males, rounded in females; fourth segment of tarsi lobed beneath.

Remarks.—This genus is known to me from an example sent to me by Sr. Bierig several years ago and four species which appear to be new. The above diagnosis was prepared before the appearance of Bierig's description.

As herein defined this genus differs from *Stilicopsis* (*paradoxa*) in having labral denticles and in having the pronotal punctation similar to that of the head, instead of having the punctures replaced by tuberculi. The genus *Dibelonetes* is known to me only from an undetermined species from Nicaragua, but this differs from *Stiliphacis* in the suborbicular shape of the head. Unless additional characters are found, it is likely that these two will be united.

I have studied 78 examples from the West Indies. They belong to five species, of which three appear to be new.

KEY TO WEST INDIAN SPECIES OF STILIPHACIS

1.	Labrum denticulate at center	2
	Labrum not denticulate	1. exigua
2.	Pronotum nearly as wide as long	3
	Pronotum one-third longer than wide	5. darlingtoni
3.	Elytra reduced, widest at apex	4. occipitalis
	Elytra not reduced, narrowed at apex	4
4.	Head completely rounded behind; 4 mm. long	2 trinitatis
	Head truncate behind; 2½ mm. long	3. dentatus

1. STILIPHACIS EXIGUA (Erichson)

Sunius exiguus Erichson, 1840, p. 647.—Kraatz, 1857a, p. 666.—Bierig, 1938, p. 142.

Stilicopsis exigua (Erichson) Bernhauer and Schubert, 1912, p. 220.—Leng and Mutchler, 1914, p. 404.—Wolcott, 1924, p. 78; 1936, p. 197.

Stilicopsis circumflexus Cameron, 1913b, p. 332.—Leng and Mutchler, 1917, p. 198.—Scheerpeltz, 1933, p. 1237.—Blackwelder, 1939a, p. 115.

Stilicopsis auripilis CAMERON, 1913b, p. 333.—LENG and MUTCHLER, 1917, p. 198.—SCHEERPELTZ, 1933, p. 1237.—BLACKWELDER, 1939, p. 115.
Stiliphacis exigua (Erichson) BIERIG, 1938a, p. 142.

Description.—Rufopiceous, elytra and abdomen testaceous, elytra usually with a black lateral spot. *Head* large, subquadrate, as wide as elytra; eyes large, prominent; sides behind eyes straight for less than length of eyes, then abruptly constricted; closely but coarsely umbilicately punctured; antennal segments transverse from the third; labrum feebly broadly lobed at center, on each side of lobe with a minute tooth. *Pronotum* scarcely wider than long, seven-eighths as wide as head and elytra, widest at anterior fourth, strongly narrowed and rounded in front, feebly narrowed posteriorly; sides finely tuberculate; punctation similar to that of head. *Prosternum* rather indistinctly longitudinally carinate on the disk. *Elytra* nearly as long as broad, a little longer than pronotum; moderately but densely punctate. *Abdomen* shining, indistinctly punctate, pubescent. *Male*, seventh sternite with a broad shallow emargination; eighth broadly and deeply emarginate. Length, 2½ to 3 mm.

Type locality.—Puerto Rico. Of *circumflexus*, "Mustique I., Grenadines, W. I."; of *auripilis*, Mount Gay Estate, Grenada.

Types.—In either the Hope Museum, Oxford, or the Zoologische Museum, Berlin. The types of *circumflexus* and *auripilis* are in the British Museum.

Records.—The following are the records known to me:

Puerto Rico: (Erichson, 1840; Leng and Mutchler, 1914; Wolcott, 1924), Jayuya (Wolcott, 1936).
Grenadines: Mustique (Cameron, 1913, as *circumflexus;* Leng and Mutchler, 1917, as *circumflexus*).
Grenada: (Cameron, 1913, as *auripilis;* Leng and Mutchler, 1917, as *auripilis*).
Trinidad: St. Augustine (Weber, in M.C.Z.).

Specimens examined.—I have examined 43 specimens in the British Museum, 5 in the collection of Dr. Cameron, and 1 from the Museum of Comparative Zoology.

Remarks.—I am unable to accept as of specific importance the characters mentioned by Dr. Cameron to separate his specimens from Grenada and Mustique. A specimen of each series that I borrowed from the British Museum for further study differ in degree from the descriptions in various points and seem to be inseparable by any character other than depth of color and extent of infuscation of the elytra.

These differ in no way from the description of *S. exigua* (Erichson) except those with the elytra infuscate laterally. I found no specimens labelled *exigua* in either the British Museum or Dr. Cameron's collection and therefore conclude that he overlooked this name.

I find no record of the habits of this species.

2. STILIPHACIS TRINITATIS, new species

Description.—Rufopiceous, apical spot of elytron and penultimate sternite testaceous. *Head* ovate, hind angles completely rounded, base emarginate above neck; eyes separated from base by a little more than their length; labrum with two slender denticles, longer than distance between them, these flanked by a pair of smaller denticles; umbilicate punctures coarse and dense, rarely uniting, often irregular in shape; without ground sculpture on the intervals. *Pronotum* about one-seventh longer than wide, not prolonged in front, widest at anterior third, sides rather strongly converging to narrowly rounded basal angles; sides rather coarsely tuberculate; umbilicate punctures a little smaller than those on head, occasionally uniting but not definitely in longitudinal rows; without ground sculpture. *Elytra* a little wider than long, one-fourth longer than pronotum; with rather coarse punctures separated by about one-third their diameter by feebly convex intervals; without distinct ground sculpture. *Abdomen* finely and obsoletely submuricately punctate; surface uneven. *Male*, unknown. *Female*, sternites unmodified. Length, 3⅔ mm.

Type locality.—Trinidad, Mount Tucuche.

Types.—Holotype, female, in the Museum of Comparative Zoology, collected in April 1929 by Dr. P. J. Darlington.

Records.—The following is the only record known to me:

Trinidad: Mount Tucuche (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the holotype.

Remarks.—In addition to its unusual size, this species may be distinguished by its labrum and its rounded head.

I have received no record of its habits.

3. STILIPHACIS DENTATUS, new species

Description.—Rufotestaceous with elytra a little paler to piceous with elytra testaceous and marked with black on the disk and apically along the suture. *Head* moderately large, suborbicular, one-fifteenth wider than elytra; eyes moderate, not very prominent, at about their length from base; sides behind eyes rather broadly rounded into base; umbilicate punctures distinct and dense, frequently irregular in shape, without ground sculpture on the intervals; labrum at middle with two acute teeth much longer than distance between them, and flanked by a pair of smaller ones. *Pronotum* about as long as wide, not prolonged in front, about three-fourths as wide as elytra, widest at anterior third, strongly narrowed in front, moderately narrowed behind to rounded angles; sides coarsely tuberculate; umbilicate punctures very irregular but distinct; without ground sculpture. *Elytra* about as wide as long, nearly one-fourth longer than pronotum; with moderate slightly elongate punctures separated by their diameter or less; intervals convex; without ground sculpture. *Abdomen* with fine but obsolescent submuricate punctures. *Male*, eighth sternite broadly and feebly emarginate, the apex of the emargination interrupted by a feeble broad lobe of the sclerite. *Female*, unknown. Length, 3 mm.

Type locality.—Grenada, 1 mile south of Sauteurs, at the northern end of the island.

Types.—Holotype, male, in the United States National Museum, No. 52391, collected by me on January 13, 1936. Twelve paratypes are in the British Museum.

Records.—The following are the records known to me:

St. Vincent: (British Museum).
Grenada: (Blackwelder station 137; British Museum).

Specimens examined.—I have seen only the 13 types.

Remarks.—The type specimen differs from *exiqua* (*auripilis* and *circumflexus* of Cameron) in the strongly dentate labrum and rounded basal angles of head. In labral structure it is close to the prevailing conception of *Dibelonetes*. The paratypes were placed in the British Museum under the name *Dibelonetes stigma* Erichson. A specimen of the latter from Brazil appears to be larger, with coarse punctation, and has a much larger elytral black spot than our species.

The type was found in decaying cocoa pods.

4. STILIPHACIS OCCIPITALIS Bierig

Stiliphacis occipitalis Bierig, 1938b, pp. 141, 142, figs. 3–5.—Blackwelder, 1939a. pp. 115, 122.
Stiliphacis truncata Bierig, MS.

Description.—Testaceous. *Head* moderately large, subhexagonal, including the eyes as wide as elytra; eyes rather prominent, separated from base by about their length; sides behind eyes feebly converging, angles rather broadly rounded; umbilicate punctures large and dense, frequently irregular in shape, without ground sculpture on the intervals; labrum transverse, at middle with two acute teeth about two-thirds as long as labrum, longer than distance between them, and a pair of minute denticles outside them. *Pronotum* a little longer than wide, not prolonged in front, five-sixths as wide as elytra, widest at anterior third, strongly narrowed in front, moderately narrowed behind to rounded angles; sides indistinctly tuberculate; umbilicate punctures as on head, irregular and often uniting in short grooves; without ground sculpture. *Elytra* one-fifth wider than long, as long as pronotum; with rather coarse impressed punctures separated by feebly convex intervals; without ground sculpture. *Abdomen* sparsely and rather indistinctly submuricately punctate. *Male*, unknown. *Female*, eighth sternite rounded. Length, 2 mm.

Type locality.—Cuba, Sierra del Rosario.

Types.—In the collection of Alexander Bierig.

Records.—The following is the only record known to me:

Cuba: Sierra del Rosario (Bierig, 1938; Bierig, in Blackwelder collection).

Specimens examined.—I have seen only one example in my own collection, received from Sr. Bierig some years ago under the name *truncata.*

Remarks.—This species is very similar to *dentatus* but seems to be distinct. It can apparently be recognized by its small size and pale color as well as by the reduced elytra.

I find no record of its habits.

5. STILIPHACIS DARLINGTONI, new species

Description.—Castaneous, somewhat picescent especially in front, elytra paler. *Head* ovate, wider than the elytra; eyes prominent, at one-half more than their length from base; sides completely rounded into base which is emarginate above the neck; labrum with two slender teeth a little longer than distance between them, flanked by a pair of small denticles; with moderately large and dense umbilicate punctures, frequently united in short irregular channels; without ground sculpture on the intervals. *Pronotum* one-third longer than wide, widest at middle, sides behind nearly straight, basal angles moderately rounded; sides indistinctly tuberculate; punctures as on head but not as flat-bottomed, only occasionally united; without ground sculpture. *Elytra* barely wider than long, seven-eighths as long as pronotum, narrower than abdomen or head; with rather coarse impressed punctures separated by feebly convex intervals; without distinct ground sculpture. *Abdomen* with coarse punctures basally on each segment, becoming finer toward apex. *Male*, eighth sternite truncate. *Female*, eighth sternite prominently rounded. Length, 2½ to 3 mm.

Type locality.—Jamaica, main range of the Blue Mountains, elevation 5,000 to 7,388 feet.

Types.—Holotype, male, and seven paratypes in the Museum of Comparative Zoology; six paratypes in the United States National Museum (No. 52519); collected on August 17–19, 1934, by Dr. P. J. Darlington.

Records.—The following is the only record known to me:

Jamaica: Blue Mountains (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the 14 types.

Remarks.—This species is distinct by the punctures of the pronotum differing in appearance from those of the head, as well as by the coarse punctures of the abdomen, the reduced elytra, and the feeble male characters.

I have received no record of its habits.

LIII. Genus SUNIOSAURUS Bierig

Suniosaurus BIERIG. 1938b, p. 139.

Genotype.—*S. cuadriceps* Bierig (original designation and monobasic).

Diagnosis.—Body slender, elongate; antennae filiform, not verticillate, posteriorly flexile at first joint; labrum with two long, slender, hornlike processes within a slight emargination; third segment of maxillary palpus much enlarged, fourth minute; gular sutures apparently united behind from near middle; neck about two-fifths as wide as head; pronotum quadrate; hypomera divided by a diagonal line descending from base to middle of side; prosternum longitudinally carinate at middle, dilated under coxae nearly as far as the hypomera; anterior coxae large, prominent; mesosternum not carinate; middle coxal cavities confluent; abdomen strongly margined; sternites of first and second segments not present; front femora dilated; tarsi 5-segmented, slender, fourth tarsomere simple.

Remarks.—These characters are taken from the specimen collected by N. A. Weber at Soledad. Sr. Bierig's diagnosis was very brief but does not conflict with the above except in regard to the gular sutures, which he described as obsolete. They are very clear in the specimen examined by me.

There is some question as to whether this genus will key out properly in my key to the Paederini (Blackwelder, 1939), since the prosternal process is expanded under the coxae only about halfway to the hypomeral edge. It seems clearly to belong in the present series, however, rather than in the Medon-group.

This genus was said to be intermediate between *Suniocharis* and *Suniotrichus*, but my study of these two genera shows them to be very widely separated in the subfamily, the former being close to *Dibelonetes* and *Echiaster*, the latter being close to *Thinocharis*. My examination indicates that it probably is more nearly related to *Suniocharis* and will stand next to that genus in the key. It may be distinguished readily by the size and shape of the labral denticles.

I have seen only one specimen, which seems to belong to the genotype species.

1. SUNIOSAURUS CUADRICEPS Bierig

Suniosaurus cuadriceps BIERIG, 1938b, pp. 140, 143.—BLACKWELDER, 1939a, p. 122.

Description.—Rufocastaneous. *Head* subquadrate; eyes at about twice their length from base; antennae long and slender, no segments transverse; with moderate indistinctly umbilicate punctures almost completely obscured by dense scaly ground sculpture. *Pronotum* as wide as head, as broad as long, sides rounded into base; without impunctate midline; without punctures but sculptured as head but more densely and finely; with short pubescence. *Elytra* nearly as broad as head and pronotum, nearly one-fourth longer than broad; with rather dense rounded setiferous tuberculi, with rather indistinct but granulose ground sculpture between. *Abdomen* with fine and dense but obsolescent submuricate punctures, without definite ground sculpture. *Male*, unknown. *Female*, apical tergites and sternites unmodified. Length, 4 mm.

Type locality.—Cuba.

Types.—In the collection of Alexander Bierig.

Records.—The following are the records known to me:

Cuba: La Lisa (Bierig, 1938), El Mariel (Bierig, 1938), Sierra de Anafe (Bierig, 1938), Aspiro (Bierig, 1938), Soledad (Weber, in M.C.Z.).

Specimens examined.—I have seen only the one specimen, from Soledad in the Museum of Comparative Zoology.

Remarks.—This specimen is assigned to this species without much hesitation. The description given above is that of my specimen and has not been compared with the type or changed to fit Bierig's description.

I have some doubt as to the sex of the specimen I have seen, although it has no apparent modifications of the abdomen. Sr. Bierig did not record the sex of his specimens.

The type was found under fallen leaves, and Mr. Weber's example was collected in a Berlese funnel.

LIV. Genus SUNIOCHARIS Sharp

Suniocharis Sharp, 1886, p. 586.

Genotype.—*S. modesta* Sharp (designated by Blackwelder, 1939).

Diagnosis.—Body slender; antennae short, flexile at first joint; labrum indistinctly bidenticulate; mandibles short, acutely tridentate; third segment of maxillary palpus much enlarged, fourth minute; gular sutures narrowly separated, feebly converging posteriorly at least in front; neck very slender; hypomera divided by a diagonal line descending from base to apex; prosternum longitudinally carinate at middle, dilated posteriorly under coxae as far as the hypomera but not connate with it; anterior coxae large, prominent; mesosternum not carinate; middle coxal cavities confluent; abdomen strongly margined; sternites of first and second segments not present; sternite of third segment longitudinally carinate at base; front femora dilated; tarsi 5-segmented, very slender, fourth tarsomere simple.

Remarks.—Bernhauer has described a subgenus of this as *Parasuniocharis* (1933, pp. 519, 520), with genotype *Suniocharis* (*Parasuniocharis*) *boxi* Bernhauer (monobasic and designated). I have seen no examples and am unable to state whether it belongs here or not.

Sharp's original description of the tarsus is as follows: "The terminal joint is, however, inserted above the fourth joint very near the base of the third; as the fourth joint is placed underneath the terminal one, and is not wider than it, the foot appears to be 4-jointed." I have not been able to verify this on my single specimen. The tarsi there are very distinctly slender, the segments decreasing in size from the first to the fourth, and with the apex of each only a little diagonally truncate.

I have seen only three specimens of a species that appears to be distinct from the previously known species.

1. SUNIOCHARIS VOLANS, new species

Description.—Rufopiceous, pronotum rufous, elytra indefinitely testaceous at apex. *Head* subquadrate, truncate behind, the angles right; eyes small, at much more than their length from base; antennae short and stout, segments 7 to 10 transverse, 11 longer than 9 and 10 together; punctate but with fine and rather dense tuberculi somewhat obscured by indefinite ground sculpture; clypeus truncate in front. *Pronotum* as wide as head, one-eighth wider than long, obtrapezoidal, widest at front, feebly narrowed behind, angles moderately narrowly rounded; with feebly depressed midline basally; with tuberculi as on head or a little coarser; with short pubescence. *Elytra* about as wide as long, one-sixth longer than pronotum; surface densely covered with tiny elongate tuberculi, arranged longitudinally more or less in series, shining surface visible between; with rather long pubescence. *Abdomen* rather densely, finely, and transversely serially submuricately punctate, less distinct and dense apically. *Male*, unknown. *Female*, apical tergites and sternites unmodified. Length, 3 mm.

Type locality.—Trinidad, between Sangre Grande and Sans Souci by way of Toco, parishes of St. Andrew and St. David.

Types.—Holotype, female, U.S.N.M. No. 52395, collected by me on December 15, 1935; two paratypes, female, in Museum of Comparative Zoology and United States National Museum, collected in 1935 by N. A. Weber.

Records.—The following are the records known to me:

Trinidad: Sangre Grande (Blackwelder station 100B), Maracao Valley (Weber, in U.S.N.M.), San Rafael (Weber, in M.C.Z.).

Specimens examined.—I have seen only the three types.

Remarks.—This species differs from the Central American species described by Sharp in its much smaller size, stouter antennae, and probably other characters not mentioned in the descriptions.

The type was caught flying at dusk.

LV. RONETUS, new genus

Genotype.—*R. ortinolus* Blackwelder (designated here).

Diagnosis.—Slender and elongate, moderately constricted; antennae posteriorly flexile, not strongly geniculate, basal segment not much elongate, some apical segments transverse; eyes prominent; head not grooved behind eyes; labrum short and broad, with four large equal triangular teeth; gular sutures united throughout; third segment of maxillary palpus enlarged, elongate, fourth minute; neck less than one-fourth as wide as head; prothorax elongate but not greatly prolonged in front; prosternum expanded under the coxae and connate with the hypomera; hypomera not much lobed behind the coxae; anterior coxal cavities open above but closed below by the sternal processes; anterior coxae large, exserted; middle coxal cavities confluent; posterior coxae contiguous, "conical"; first and second abdominal sternites absent; tarsi 5-segmented, slender, fourth segment not lobed beneath; integuments all densely coarsely tuberculate in appearance.

Remarks.—This is one of our most distinct genera because of the coarse sculpture. The tuberculi seem to bear one hair and to be covered with a white precipitate, but I have not been able to wash this off by any means. It would key out to or near *Myrmecosaurus* in my key to the Paederini (Blackwelder, 1939) but is distinguished at once from that peculiar genus in lacking the ridges at the sides of the head, pronotum, and elytra. In most other respects these two genera are rather similar.

I have seen only one example, the genoholotype.

1. RONETUS ORTINOLUS, new species

Description.—Castaneous or piceous, color obscured by dense covering of whitish secretion or precipitate. *Head* semicircular behind, nearly one-half longer than wide, unusually convex; eyes prominent, at one-half more than their length from base; antennae filiform to fifth joint, five penultimate segments moniliform; surface throughout with indistinct but dense and coarse verrucose sculpture, each prominence bearing an anteriorly-projecting seta and covered with a flaky deposit. *Pronotum* one-half longer than wide, three-fourths as wide as head, widest at middle, sides straight in front and behind, basal angles narrowly rounded; with sculpture as on head. *Elytra* about one-sixth longer than wide, one-tenth longer than pronotum; sculptured as head but without the obvious setae. *Abdomen* sculptured as elytra. *Sexes* not distinguished. Length, 4 mm.

Type locality.—Trinidad, La Ortinola Estate, Maracas Valley.

Types.—Holotype, sex unknown, in the Museum of Comparative Zoology, collected on September 18, 1935, by N. A. Weber.

Records.—The following is the only record known to me:

Trinidad: Maracas Valley (Weber, in M.C.Z.).

Specimens examined.—I have seen only the unique type.

Remarks.—I know of no other staphylinid that can be confused with this. It differs from *Myrmecosaurus* by the shape of the head and the absence of ridges and from all others by the verrucose sculpture.

I have received no record of its habits.

LVI. Genus ASTENUS Stephens

Astenus STEPHENS, 1832, p. 275.
Sunius ERICHSON, 1839a, p. 523 (not Stephens, 1829).
Subgenus *Mecognathus* WOLLASTON, 1854, p. 595.
    Suniogaster REITTER, 1909, p. 151.
Subgenus *Neognathus* SHARP, 1874, p. 69.
Subgenus *Astenognathus* REITTER, 1909, p. 150.
Subgenus *Eurysunius* REITTER, 1909, p. 149.

Genotypes.—*Staphylinus angustatus* Fabricius=*Astenus angustatus* (Fabricius) (designated by Westwood, 1838); the designation of *brunneus* Stephens by des Gozis, 1886, cannot stand; the designation of Blackwelder, 1939, was made in ignorance of that of Westwood and in oversight of that of des Gozis. Of *Sunius*, *Staphylinus angustatus* Fabricius=*Sunius angustatus* (Fabricius) (designated by Blackwelder, 1939); of *Astenognathus*, *Sunius bimaculatus* Erichson=*Astenus* (*Astenognathus*) *bimaculatus* (Erichson) (designated by Blackwelder, 1939); of *Eurysunius*, *Sunius paradoxus* Eppelsheim=*Astenus* (*Eurysunius*) *paradoxus* (Eppelsheim) (designated by Blackwelder, 1939); of *Mecognathus*, *M. chimaera* Wollaston (monobasic); of *Suniogaster*, *Sunius ampliventris* Reitter=*Astenus* (*Suniogaster*) *ampliventris* (Reitter) (monobasic); of *Neognathus*, *N. angulatus* Sharp (monobasic).

Diagnosis.—Very slender and elongate, moderately convex; antennae posteriorly flexile, not strongly geniculate, basal segment not much elongate, slender; eyes prominent; head not grooved behind the eyes; labrum short and very wide, bidentate; gular sutures united throughout; third segment of maxillary palpus enlarged but not subspherical, fourth subulate; neck not very slender; prothorax not prolonged in front; prosternum prolonged posteriorly between and under coxae and laterally as far as the hypomera with which it is connate; hypomera somewhat prolonged in a lobe behind the coxae; anterior coxal cavities open behind above but closed beneath by the sternal processes; anterior coxae large, exserted; middle coxal cavities confluent; posterior coxae contiguous, "conical"; first and second abdominal sternites absent, seventh generally not modified, eighth emarginate in male; tarsi 5-segmented, fourth segment lobed beneath.

Remarks.—This large genus is well represented in all parts of America. It is easily recognizable by its slender form and apically enlarged abdomen. The subgenera that have been named are not sufficiently well known to me to permit me to place the West Indian species in their proper positions.

I have seen from the West Indies 57 specimens, representing 3 species.

KEY TO WEST INDIAN SPECIES OF ASTENUS

1. Supraantennal ridge joining upper margin of eye as a distinct smooth line. 3. **juvus**
   Supraantennal ridge not reaching to upper margin of eye ---------------- 2
2. Elytra maculate or bicolored ---------------------------------- 2. **cubensis**
   Elytra not maculate, unicolorous -------------------------- 1. **cinctiventris**

1. ASTENUS CINCTIVENTRIS (Sharp)

Sunius cinctiventris SHARP, 1886, p. 601.

Astenus cinctiventris (Sharp) BERNHAUER and SCHUBERT, 1912, p. 215.—BIERIG, 1933, p. 517.

Description.—Rufotestaceous to testaceous, usually with indefinite piceous or cloudy areas on head and pronotum, and seventh abdominal tergite piceous except at apex. *Head* slightly longer than broad; eyes at about their length from the neck; sides evenly and strongly rounded to base; with dense umbilicate punctures indistinct, obscured in front by ground sculpture; a band of ground sculpture separating the punctures from the front edge of clypeus; supraantennal ridge disappearing before the eye; beneath with rather coarse abrupt punctures; ground sculpture strong in front but vague posteriorly; united gular suture scarcely at all depressed at base. *Pronotum* two-sevenths longer than wide, about seven-eighths as wide as head, widest at anterior three-eighths, sides nearly straight in front, feebly arcuate and moderately converging behind; with umbilicate punctures dense but indistinct and frequently united longitudinally. *Elytra* widest at middle, narrowed to both ends; with moderate asperate punctures, moderately dense but not serial. *Abdomen* moderately and densely somewhat serially muricately punctate. *Male,* eighth sternite with a small triangular emargination; ninth tergite with a deep narrowly triangular notch between short processes. *Female,* unknown. Length, 3 to 4 mm.

Type locality.—Guatemala.

Types.—A series in the British Museum (one labeled type).

Records.—The following are the records known to me:

Hispaniola: DOMINICAN REPUBLIC, San José de las Matas (Darlington, in M.C.Z.), Sánchez (Darlington, in U.S.N.M.).

St. Lucia: (H. E. Box, as Blackwelder station 444B).

St. Vincent: (British Museum).

Grenadines: Mustique (British Museum).

Grenada: (British Museum).

Central America: GUATEMALA, MEXICO, PANAMA (Sharp, 1886), COSTA RICA (Bierig, 1933).

Specimens examined.—I have seen 38 examples from the West Indies in the British Museum, 2 from the Museum of Comparative Zoology, and 4 collected by Dr. H. E. Box in St. Lucia.

Remarks.—I was unable to distinguish the West Indian examples from the Guatemalan type of this species in the British Museum. It is probably a more widespread species than our records yet indicate.

Dr. Box collected his specimens from decomposing trash in sugarcane fields.

2. ASTENUS CUBENSIS, new species

Description.—Rufous or rufotestaceous, sometimes with abdominal segments piceous, disk of head and pronotum infuscate, and elytra with a lateral black spot of variable size. *Head* a little longer than wide; eyes at about their length from neck; sides evenly and strongly rounded to base; with dense umbilicate punctures above extending to smooth margin of clypeus in front; with indistinct ground sculpture on ridges between punctures, especially in front; supraantennal ridge disappearing in front of eyes; beneath with rather coarse punctures, each one ill-defined anteriorly; ground sculpture confined to area near mouth parts; united gular suture rather depressed at base. *Pronotum* one-fourth longer than wide, seven-eighths as wide as head, widest at anterior third, sides straight and strongly converging in front, feebly arcuate and moderately converging behind; with dense umbilicate punctures, seldom united or much elongate; without ground sculpture. *Elytra* narrowed posteriorly, strongly convex; with asperate punctation, moderately dense, sometimes appearing to be in transverse rows. *Abdomen* rather strongly and densely, somewhat serially, muricately punctate. *Male*, eighth sternite with a moderate triangular notch at apex; ninth tergite with a rounded emargination somewhat deeper than wide between two acute processes. *Female*, tergites and sternites unmodified. Length, 3 to 3¼ mm.

Type locality.—Cuba, Cayamas, about 15 miles west-northwest of Cienfuegos, southern Santa Clara Province.

Types.—Holotype, male, and three paratypes, U.S.N.M. No. 52430, collected in January by E. A. Schwarz.

Records.—The following are the records known to me:

Cuba: Cayamas (Schwarz, in U.S.N.M.), Jatibanico (Christenson, in U.S.N.M.), Limones (W. M. Mann, in U.S.N.M.), Soledad (Weber, in M.C.Z.).
Jamaica: Blue Mountains (Darlington, in M.C.Z.).

Specimens examined.—I have seen four examples beside the types in the United States National Museum, and two in the Museum of Comparative Zoology.

Remarks.—This species is normally one of the ones with maculate elytra, but even in our eight specimens there is great variation, the dark spot being almost completely absent in two cases and covering the entire basal two-thirds in another.

I have no record of the habits of this species except that the Soledad example was collected in a Berlese funnel.

3. ASTENUS JUVUS, new species

Description.—Rufotestaceous, apex of abdomen feebly piceescent. *Head* about one-seventh longer than broad; eyes at a little more than their length from base; scarcely narrowed behind eyes, basal angles moderately rounded; with very dense umbilicate punctures above obscured by ground sculpture in front; supraantennal ridge clearly uniting with upper margin of eye; beneath with rather coarse abrupt punctures; ground sculpture visible in certain lights on all of the ventral aspect; united gular sutures somewhat impressed near base. *Pronotum* nearly one-fifth longer than wide, about as wide as head, widest on anterior third, sides feebly arcuate and strongly converging anteriorly, nearly straight and feebly converging posteriorly; with dense umbilicate punctures; with indistinct ground sculpture on the ridges. *Elytra* widest at middle, narrowed to both ends; with coarse asperate punctation, moderately dense. *Abdomen* finely and moderately sparsely, somewhat serially, submuricately punctate. *Male*, unknown. *Female*, eighth sternite rounded. Length, 4 mm.

Type locality.—Trinidad, Montserrat, in county of Caroni.

Types.—Holotype, female, U.S.N.M. No. 52427, collected by August Busck.

Records.—The following is the only record known to me:

Trinidad: Montserrat (Busck, in U.S.N.M.).

Specimens examined.—I have seen only the unique type.

Remarks.—This species seems to be distinct from the true West Indian species by the character of the supraantennal ridge. I am not able to determine whether it is distinct from all the South American species, however.

I find no record of its habits.

LVII. Genus ECHIASTER Erichson

Echiaster Erichson, 1840, p. 636.
Subgenus *Leptogenius* Casey, 1886b, p. 214.

Genotypes.—*E. longicollis* Erichson (designated by Duponchel, 1841). Of *Leptogenius*, *L. brevicornis* Casey (monobasic).

Diagnosis.—Body moderately elongate and strongly constricted, with very dense sculpture; head not grooved behind eyes; vertex not carinate; eyes large, prominent; antennae posteriorly flexile, not strongly geniculate, basal segment not much elongate, first and second not enlarged with rest slender; labrum moderately large, with four triangular denticles; third segment of maxillary palpus enlarged but not subspherical, fourth segment subulate; gular sutures united; neck slender; prothorax not elongate or prolonged in front; prosternum dilated under front coxae and connate with hypomera; hypomera feebly lobed behind the coxae; anterior coxal cavities open behind above but closed beneath by the prosternal processes; anterior coxae large, exserted; middle coxal cavities confluent; posterior coxae contiguous, "conical"; first and second abdominal sternites absent, eighth sternite sometimes broadly emarginate in male; tarsi 5-segmented, fourth segment not strongly lobed beneath.

Remarks.—This genus is confined to temperate and tropical America. It is distinct by its dense sculpture and quadridentate labrum. I am unable to distinguish *Leptogenius* Casey as more than a subgenus.

The record of *Echiaster solitarius* Sharp from Jamaica by Gowdey, 1926, is probably a misidentification. Until the specimens can be reexamined, it must be regarded as a doubtful record.

I have examined 63 specimens from the West Indies, which I assign to 6 species of which 1 appears to be new.

KEY TO WEST INDIAN SPECIES OF ECHIASTER

1. Elytra with intervals between punctures smooth and shining. 6. impressicollis
   Elytra densely punctate, intervals not shining or distinct 2
2. Eyes large, at less than their length from base 3
   Eyes small or moderate, at their length or more from base 4
3. Elytra black, obscurely lighter at the shoulders; head densely granularly sculptured .... 4. sharpi
   Elytra testaceous with apical third black; head densely and finely umbilicately punctured .... 5. buphthalmus
4. Eyes moderate, at about their length from base 5
   Eyes very small, at twice their length from base .... 1. microps
5. "Dull pitchy black; elytra obscurely lighter at the shoulders" ... 2. distinctus
   Ferruginous, not as above .... 3. waterhousei

1. ECHIASTER MICROPS, new species

Description.—Rufous to rufotestaceous, head, pronotum, and abdomen sometimes piceseent in part, elytra with apical half black. *Head* moderately large, subquadrate; eyes very small, at nearly twice their length from base; no punctures visible, but sculpture very dense and granulose and tuberculose; antennae short, segments 7 to 10 transverse. *Pronotum* nearly four-fifths as wide as head, as broad as long; widest at anterior third, thence abruptly narrowed to neck, moderately narrowed to base; disk longitudinally impressed on each side of midline, leaving a distinct elevated convex ridge; sculpture similar to that of head. *Elytra* as broad as long, one-third longer than pronotum; sculpture similar to that of head and pronotum but with very fine pubescence. *Abdomen* near base wider than elytra, narrower posteriorly; with moderately fine but not dense submuricate punctures; pubescence rather long apically. *Male*, eighth sternite feebly broadly emarginate. *Female*, eighth sternite broadly rounded. Length 1½ to 2¼ mm.

Type locality.—Montserrat.

Types.—Holotype, female, and one paratype, female, U.S.N.M. No. 52403, collected in February and March by H. G. Hubbard.

Records.—The following are the records known to me:

[Cuba: Cayamas (Schwarz, in U.S.N.M.).]
Montserrat: (Hubbard, in U.S.N.M.).

Specimens examined.—I have seen the two types and one other specimen.

Remarks.—The Cuban example is placed with this species with some doubt. It is considerably larger but seems to differ otherwise only in the less distinct pronotal impressions and slightly more rounded pronotum.

The sculpture of the forebody has been examined with a binocular microscope at a magnification of over 200 diameters. At this and all lower magnifications it appears to be densely granulose and tuberculose.

I find no record of the habits of this species.

2. ECHIASTER DISTINCTUS Cameron

Echiaster distinctus Cameron, 1913b, p. 338.—Leng and Mutchler, 1917, p. 198.—Scheerpeltz, 1933, p. 1238.

Description.—Dull pitchy black, elytra obscurely reddish testaceous at the shoulders, abdomen ferruginous at apex. *Head* large, subquadrate, longer than broad, posterior angles rounded; eyes rather small; temples large, longer than diameter of the eyes; punctation close, rugose, and umbilicate; antennae short, segments 6 to 10 transverse. *Pronotum* narrower than head and elytra, broadest at anterior angles, which are rounded, posterior angles obtuse; scarcely longer than wide, carinate posteriorly on midline; sculptured as head. *Elytra* as long as broad, closely and rugosely punctured. *Abdomen* closely punctate and shortly pubescent. Length, 2⅘ mm. (From Cameron.)

Type locality.—Jamaica, Wag Water River.

Types.—Unique type in the collection of Dr. Cameron.

Records.—The following is the only record known to me:

Jamaica: (Leng and Mutchler, 1917), Wag Water River (Cameron, 1913).

Specimens examined.—I have seen only the type, which I examined briefly in Dr. Cameron's collection.

Remarks.—Although I cannot say from direct examination, it seems possible that an error was made in the original description of the sculpture of the head and pronotum. In the description of this species and of *waterhousei* the sculpture of the head and pronotum is described as dense, rugose, and umbilicate. An examination of the latter species (cotypes sent from the British Museum) shows that this sculpture is not at all umbilicate (as defined by Cameron, 1930, p. x) but is coarsely granulose or tuberculose. I find this appearance of dense granulation under all magnifications from 21 to 204 times. From this I conclude that the sculpture of *distinctus* is probably similarly granulose instead of umbilicate as described. Furthermore, on *waterhousei* there is no sign of rugosity, at least in the sense of ridges or wrinkles.

I find no record of the habits of this species.

3. ECHIASTER WATERHOUSEI Cameron

Echiaster waterhousei CAMERON, 1913b, p. 336.—LENG and MUTCHLER, 1917, p. 198.—SCHEERPELTZ, 1933, p. 1239.—BLACKWELDER, 1939a, p. 116.

Description.—Rufotestaceous, often more testaceous behind, apical half of elytra black or infuscate, abdomen infuscate before the apex. *Head* moderate, subquadrate; eyes moderate, at about their length from base; impunctate but densely granulose and tuberculose; antennae short, segments 5 to 10 transverse. *Pronotum* nearly five-sixths as wide as head, as long as broad; widest at anterior two-fifths, strongly narrowed and slightly produced in front, moderately narrowed behind; disk longitudinally impressed basally along the midline; sculpture similar to that of head. *Elytra* as broad as long, two-fifths longer than pronotum; sculptured similarly to pronotum but a little less densely and sometimes vaguely in longitudinal series. *Abdomen* somewhat fusiform; with fine and moderately dense submuricate punctures on the four basal tergites, apical tergites with coarse muricate punctures bearing long black hairs. Length, 2 to 2½.

Type locality.—Grenada, Chantilly Estate.

Types.—Fourteen specimens (one labeled type) in the British Museum; five in the collection of Dr. Cameron (one labeled cotype);

six in the United States National Museum (one labeled cotype and paratype, No. 50374).

Records.—The following are the records known to me:

[Cuba: Marianao (Cameron collection, as *minutus* Sharp.).]
Jamaica: (Cameron collection), Trinityville (Blackwelder station 428), Troy (Blackwelder station 409).
Hispaniola: DOMINICAN REPUBLIC, Sánchez (Darlington, in M. C. Z.).
St. Vincent: (Cameron, 1913).
Grenada: (Cameron, 1913; Leng and Mutchler, 1917; Blackwelder station 137).

Specimens examined.—I have seen 14 examples in the British Museum, 6 in the collection of Dr. Cameron, 1 from the Museum of Comparative Zoology, 6 in the United States National Museum, and 5 collected by me in 1935–37.

Remarks.—The single specimen labeled *minutus* in the Cameron collection is very likely this species. I was not able to compare it with the type of *minutus* in the British Museum but find that the description of *minutus* is insufficient to separate it from *waterhousei.*

The discontinuous distribution indicated above from the original publication is verified by my own captures. Further collecting will undoubtedly bring many new records.

My specimens were collected from decaying cocoa pods.

4. ECHIASTER SHARPI Cameron

Echiaster sharpi CAMERON, 1913b, p. 337, 338.—LENG and MUTCHLER, 1917, p. 198.—SCHEERPELTZ, 1933, p. 1239.

Description.—Head and pronotum ferruginous, elytra black, obscurely lighter at the shoulders, abdomen black, apex obscurely lighter. *Head* large, orbicular; eyes large, their diameter much greater than the length of the temples; sculpture close, rugose, umbilicate; antennae short, segments 6 to 10 transverse. *Pronotum* narrower than head, distinctly longer than broad, oval-oblong, carinate at center (with a raised central line), anterior angles rounded, posteriorly obtuse; sculpture as on head. *Elytra* distinctly longer than broad, and little longer than the pronotum; closely and rugosely punctured. *Abdomen* narrowed at apex; closely punctate and shortly pubescent. Length, 3 mm. (From Cameron.)

Type locality.—Jamaica, Hope River district.

Types.—Unique type in the collection of Dr. Cameron.

Records.—The following is the only record known to me:

Jamaica: (Leng and Mutchler, 1917), Hope River (Cameron, 1913).

Specimens examined.—I have seen only the unique type, which I examined briefly in Dr. Cameron's collection.

Remarks.—The remarks concerning punctation under *distinctus* apply equally to this species.

I find no record of its habits.

5. ECHIASTER BUPHTHALMUS Cameron

Echiaster buphthalmus CAMERON, 1913b, p. 337.—LENG and MUTCHLER, 1917, p. 198.—SCHEERPELTZ, 1933, p. 1238.—BLACKWELDER, 1939a, p. 116.

Description.—Rufotestaceous, elytra paler with apical third black, apex of abdomen piceous. *Head* moderately large, suborbicular; eyes large, at about half their length from base; very densely and very finely umbilicately punctured throughout; antennae short, segments 7 to 10 transverse. *Pronotum* about five-sevenths as wide as head, one-fifth longer than wide; widest at anterior third, strongly narrowed in front, moderately narrowed behind; with just a trace of umbilicate sculpture as on head but surface appearing (with magnification of 85 times) densely granulose and tuberculose [16]; with a longitudinal impression on each side of midline, more separated than usual. *Elytra* as broad as long, one-sixth longer than pronotum; densely granulose and tuberculose, with trace of longitudinal series but not rugose. *Abdomen* narrowed posteriorly; at base densely granulose, becoming less distinct apically; seventh to ninth tergites with dense black hairs arising from small submuricate punctures. Length, 2¼ to 3 mm.

Type locality.—St. Vincent.

Types.—Four specimens (one labeled type) in the collection of Dr. Cameron; a series of 12 examples in the British Museum also contains a specimen labeled type, from Mustique.

Records.—The following are the records known to me:

Antigua: (Blackwelder station 275A).
St. Vincent: (Cameron, 1913; Cameron collection).
Grenadines: Mustique (Cameron, 1913; Leng and Mutchler, 1917; British Museum).
Grenada: (British Museum).
Trinidad: St. Augustine (Weber, in M.C.Z. and U.S.N.M.), Tunapuna foothills (Weber, in M.C.Z.).

Specimens examined.—I have examined 12 specimens in the British Museum, 4 in the collection of Dr. Cameron, 8 from the Museum of Comparative Zoology, and 1 collected by me in 1935–37. The above description was taken from a specimen borrowed from the British Museum and the one taken by me.

Remarks.—This species is distinct from all the others examined by me in having the head actually umbilicately punctured.

The specimen labeled type in the Cameron collection must be accepted as the holotype, inasmuch as Dr. Cameron recorded that the type was in his collection. The examples in the British Museum undoubtedly have the value and usefulness of paratypes, though not entitled to such status under the International Code.

My specimen was found in dung.

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[16] On certain specimens that have been dirty the remnants of the dirt in the sculpture depressions give a distinct impression of umbilicate punctures.

6. ECHIASTER IMPRESSICOLLIS Cameron

Echiaster impressicollis CAMERON, 1913b, p. 338.—LENG and MUTCHLER, 1917, p. 198.—SCHEERPELTZ, 1933, p. 1238.

Description.—Dirty brownish testaceous, abdomen black at apex. *Head* oval, longer than broad, gradually rounded and contracted behind the eyes, without trace of posterior angles; coarsely and rugosely punctured; antennae as long as head, segments 7 to 10 transverse. *Pronotum* twice as long as broad, widest at middle, gradually narrowed in front and behind with all angles obliterated; closely and rugosely sculptured. *Elytra* not longer than pronotum, very coarsely but not very closely punctate, with intervals smooth and shining; with coarse pubescence. *Abdomen* with tergites 3 to 6 very coarsely punctured and pubescent with intervals smooth and shining; last two segments very finely punctured and pubescent, shining. Length, 4 mm. (From Cameron.)

Type locality.—Grenada, Balthazar.

Types.—Unique type in the British Museum.

Records.—The following is the only record known to me:

Grenada: (Cameron, 1913; Leng and Mutchler, 1917; British Museum).

Specimens examined.—I have seen only the unique type in the British Museum.

Remarks.—From my study of the type I can record the following to supplement or correct the above description which was rearranged from the original publication: Head exactly one-third longer than wide (length from nuchal constriction to apex of clypeus; width not including eyes); labrum divided into four short triangular lobes which are twice as long as wide at base; sculpture of head not rugose but composed of closely spaced hemispherical tuberculi instead of punctures or depressions; pronotum almost exactly two-thirds as wide as long, sculptured as head; elytra exactly as long as pronotum, one-ninth narrower than long; hind tarsus with first four segments decreasing gradually in length, first longer than the fifth, filiform; pubescence not at all visible to me.

At the time I studied the type I made a note that it was probably not congeneric with the other West Indian species of *Echiaster*, but I am unable now to cite any character that will permit it to be separated. I therefore retain it here until it can be restudied.

I find no record of its habits.

LVIII. Genus SPHAERONUM Sharp

Sphaeronum SHARP, 1876, p. 225.
Sphaerinum SHARP, 1876, p. 36.
Sphaerinium CASEY, 1905, p. 55 (misspelling).
Sphaeronium CASEY, 1905, p. 55 (misspelling).

Genotype.—*S. pallidum* Sharp (designated by Casey, 1905).

Diagnosis.—Body very narrow and elongate; sides of head strongly grooved behind the eyes; vertex not carinate; eyes small, not prominent; antennae posteriorly flexile, rather strongly geniculate, basal segement not much elongate, first and second not enlarged with rest slender; labrum broadly feebly emarginate, not denticulate; third segment of maxillary palpus subspherical, fourth minute, retractile; gular sutures united throughout; neck very slender; prothorax elongate but not greatly prolonged in front; prosternum dilated under the front coxae and connate with the hypomera; hypomera not lobed behind the coxae; anterior coxal cavities open behind but closed beneath by the prosternal expansions; anterior coxae large, exserted; middle coxal cavities confluent; posterior coxae contiguous, "conical"; first and second abdominal sternites absent; tarsi filiform, five-segmented, fourth segment not lobed beneath.

Remarks.—This is the first record of this genus north of the Amazon Valley in Brazil. There can scarcely be any question of the identification because of the very distinct features of this genus. I have examples of the genotype for comparison.

One specimen from Cuba is all that I have seen from the West Indies. It seems to be a new species, although I am not able to compare it with all the Amazon species.

1. SPHAERONUM BERBERUM, new species

Description.—Rufocastaneous. *Head* with sides evenly rounded into base, eyes at about four times their length from base; with a distinct groove from below eye to neck on each side; with rather small but distinctly umbilicate punctures except along front margin, with distinct but not strong scaly ground sculpture; neck one-ninth as wide as head. *Pronotum* about twice as long as broad; widest at anterior two-fifths, moderately but evenly narrowed behind, more abruptly and nearly emarginately in front; with punctures about half as large as on head, less regular and more obscured by the irregular ground sculpture; narrow midline impunctate, somewhat elevated behind. *Elytra* a little shorter than pronotum, one-fifth longer than broad; with shallow and somewhat indistinct punctures usually separated by their diameter or more; without distinct ground sculpture. *Abdomen* without distinct punctures but surface very uneven, not distinctly sculptured. *Male*, unknown. *Female*, sternites not modified. Length, 5 mm.

Type locality.—Cuba, Soledad near Cienfuegos.

Types.—Holotype, female, in the Museum of Comparative Zoology, collected on October 27, 1926, by Dr. P. J. Darlington.

Records.—The following is the only record known to me:

Cuba: Soledad (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the holotype.

Remarks.—This species is very distinct among West Indian staphylinids. It differs from *S. pallidum* in its dense punctation of the head and pronotum.

I have received no record of its habits.

LIX. Genus PINOPHILUS Gravenhorst

Pinophilus Gravenhorst, 1802, p. 201.
Lycidus Laporte, 1834, p. 121.
Lyeidius Leach, *in* Dejean, 1836, p. 73 (misspelling).
Pityophilus Brullé, 1837, p. 75.
Lycidius Lacordaire, 1854, p. 102 (misspelling).
Phinophilus Redtenbacher, 1874, p. 75 (misspelling).
Subgenus *Heteroleucus* Sharp, 1886, p. 629.
Subgenus *Pinophilinus* Eichelbaum, 1908, p. 85.
Subgenus *Metapinophilus* Gridelli, 1927, pp. 114, 117.

Genotypes.—*P. latipes* Gravenhorst (monobasic). Of *Pityophilus*, same as *Pinophilus* (Rules, Article 30, II, *f*); of *Lycidus*, *L. latipes* Gravenhorst (stillborn synonym); of *Metapinophilus*, *Pinophilus reticulatus* Eppelsheim=*Pinophilus* (*Metapinophilus*) *reticulatus* Eppelsheim (designated here); of *Heteroleucus*, *H. marginatus* Sharp (designated here); of *Pinophilinus*, *Pinophilus fauveli* Schubert=*Pinophilus* (*Pinophilinus*) *fauveli* Schubert (designated here).

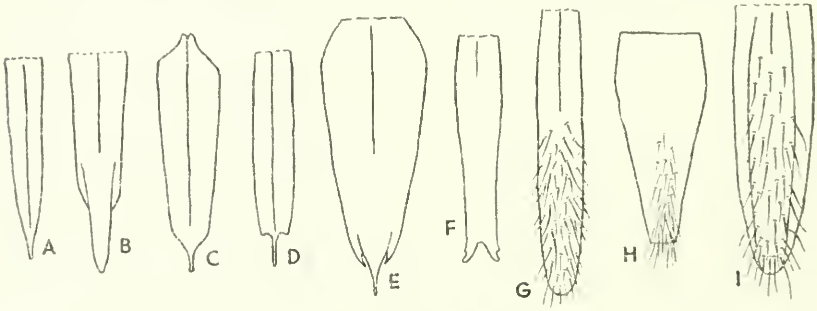

Figure 3.—Paramere of genitalia of males of *Pinophilus*: A, *P. aguayoi* Bierig; B, *P. flavipes* Erichson; C, *P. hispaniolus*, new species; D, *P. bierigi*, new species; E, *P. darlingtoni*, new species; F, *P. schwarzi*, new species; G, *P. subterraneus*, new species; H, *P. trinitatis*, new species; I, *P. danforthi*, new species.

Diagnosis.—Head margined beneath the eyes; antennae inserted at sides of head close to eyes; labrum very short, more or less bilobed; mandibles with a median inner tooth; fourth segment of maxillary palpus obliquely hatchet-shaped; gular sutures separate; hypomeron prolonged in a lobe partly behind the coxa; sternite expanded under the coxae and united with the hypomera; front coxae very large, exserted; middle coxal cavities confluent; posterior coxae contiguous, "conical"; abdomen strongly margined, first and second sternites absent, third longitudinally carinate at base; tarsi 5-segmented, middle tibia not spinose on outer side.

Remarks.—This genus contains some of the largest staphylinids known from the West Indies. It is readily distinguished from all other West Indian genera by the enormously expanded anterior tarsi.

Many of the species are very difficult to distinguish by external characters, but the median lobe of the male aedeagus provides satisfactory characters. These may often be observed in undissected specimens, but the removal of the aedeagus and the mounting of it separately are very easy and much to be recommended.

I have examined 86 examples of this genus and assign them to 13 species, of which 9 are new. One other species described from the West Indies is not available to me.

KEY TO WEST INDIAN SPECIES OF PINOPHILUS

1. Pronotum with dense ground sculpture — 2
Pronotum shining, without ground sculpture — 7
2. Ground sculpture of minute punctulae — 3
Ground sculpture of minute reticulations — 6
3. Head with three distinct sizes of punctures between the eyes — 4
Head with only very large and very small punctures between the eyes — 8. bierigi
4. Eighth sternite of male broadly truncate — 5
Eighth sternite of male somewhat produced and then narrowly truncate. 11. aguayoi
5. Punctures along midline of pronotum often separated by nearly their diameter — 9. flavipes
Punctures never separated by more than half their diameter. 10. hispaniolus
6. Pronotum impunctate along midline — 12. insigniventris
Pronotum without impunctate median band — 13. schwarzi
7. Elytra red; length 6.5 mm — 1. vermiformis
Elytra black; length 12 to 18 mm — 8
8. Pronotum as broad as or broader than long, coarsely punctate — 9
Pronotum longer than broad, finely punctate — 11
9. Elytral intervals flat, only slightly rugose — 5. subterraneus
Elytral intervals convex, strongly rugose — 10
10. Intervals near basal angles of pronotum with numerous or dense punctulae. 7. jamaicensis
Intervals at most with scattered punctulae — 6. darlingtoni
11. Sides of pronotum parallel — 4. trinitatis
Pronotum distinctly broader in front — 12
12. Pronotum very sparsely punctate except near midline — 3. cubanus
Pronotum moderately densely punctate, a little more sparsely at sides. 2. danforthi

1. PINOPHILUS VERMIFORMIS Cameron

Pinophilus vermiformis CAMERON, 1913b, p. 330.—LENG and MUTCHLER, 1917, p. 198.—SCHEERPELTZ, 1933, p. 1210.

Description.—Head and elytra reddish brown; thorax and abdomen pitchy brown, the posterior margins of the segments and apex of abdomen reddish. *Head* with about five large punctures on each side between and in front of the eyes; without "visible" ground sculpture. *Pronotum* with close, moderately coarse umbilicate punctures except on smooth midline. *Elytra* coarsely and closely punctate, more so than thorax. *Abdomen* pretty closely and moderately coarsely punctate, more finely but less closely posteriorly. Length, 6.5 mm. (From Cameron.)

Type locality.—Mustique, Grenadines.

Types.—In the British Museum.

Records.—The following are the records known to me:

Grenadines: Mustique (Cameron, 1913; Leng and Mutchler, 1917; Scheerpeltz, 1933; British Museum).

Specimens examined.—I have examined the type briefly.

Remarks.—This species differs from *danforthi* in the large punctures of the head, as well as its very small size and reddish elytra. Only the single type is known.

I find no record of its habits.

2. PINOPHILUS DANFORTHI, new species

Description.—Piceous, tip of abdomen rufous. *Head* almost without the very large punctures between and in front of the eyes, with small punctures and minute punctulae, the former somewhat grouped; surface shining. *Pronotum* not coarsely but rather densely punctate, the intervals smooth and shining, and with occasional punctulae; with a narrow and irregular impunctate midline. *Elytra* with rather strong punctures separated by about their diameter or less by flat intervals; without ground sculpture. *Abdomen* with rather coarse and dense punctures strongly excavated behind; with very fine indistinct transverse strigulae. *Male*, seventh sternite with a median longitudinal concavity which forms posteriorly a semicircular emargination, the corners being slightly prolonged; eighth sternite with a very large rectangular emargination preceded by a narrow smooth area, the base of the emargination prolonged as a triangular or rounded lobe less than one-third as long as the notch is deep, with a group of many short acute setae before the smooth area. *Female*, sternites unmodified. Length, 15 to 19 mm.

Type locality.—Puerto Rico, Humacao.

Types.—Holotype, male, U.S.N.M. No. 52426, collected by Miguel A. Diaz on November 18, 1930; seven paratypes from Haiti in the

United States National Museum and seven in the Museum of Comparative Zoology.

Records.—The following are the records known to me:

Hispaniola: HAITI, Kenskoff (Dozier, in U.S.N.M.), swamps north of Dessalines (Darlington, in M.C.Z. and U.S.N.M.), Miragoane (Darlington, in M.C.Z. and U.S.N.M.), Étang Lachaux (Darlington, in M.C.Z. and U.S.N.M.), Ennery (Darlington, in M.C.Z.).

Puerto Rico: Humacao (Diaz, in U.S.N.M.).

Specimens examined.—I have seen only the 15 types.

Remarks.—This is a very distinct species because of its shining integuments and large size. It is distinguished from all other species by its male characters; from all but *flavipes* and *darlingtoni* by its size. *P. flavipes* has the integuments sculptured; *darlingtoni* has the elytra reduced and appressed.

I have no record of the habits of this species.

3. PINOPHILUS CUBANUS, new species

Description.—Piceous, tip of abdomen rufous. *Head* without very large punctures, with rather small punctures sparse and leaving smooth areas, and with sparse minute punctulae; surface shining. *Pronotum* longer than broad; punctures as on head, separated by at least half their diameters along disk, very sparse at sides, the intervals smooth and shining, and with occasional punctulae; with irregular median stripe impunctate but with some punctulae. *Elytra* with rather strong punctures usually separated by less than their diameter by flat intervals; without ground sculpture. *Abdomen* with rather coarse and dense punctures often excavated behind; surface somewhat alutaceous but without distinct sculpture. *Male*, unknown. *Female*, sternites unmodified. Length 12 mm.

Type locality.—Cuba, Cayamas.

Types.—Holotype, female, U.S.N.M. No. 52515, collected by E. A. Schwarz; one paratype, female, in the Museum of Comparative Zoology.

Records.—The following are the records known to me:

Cuba: Cayamas (Schwarz, in U.S.N.M.), Soledad (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the two types.

Remarks.—This species differs from *danforthi* in its smaller size and sparse punctation of the pronotum. It probably also differs in the character of the male, at present unknown.

I have received no record of its habits.

4. PINOPHILUS TRINITATIS, new species

Description.—Piceous, apex of abdomen rufous. *Head* without very large punctures, with small punctures rather sparse and a few minute punctulae; surface shining. *Pronotum* longer than broad, parallel; punctured and sculptured as head, more densely on disk; with irregular impunctate midline. *Elytra* with rather strong punctures usually separated by nearly their diameter by flat intervals; without distinct ground sculpture. *Abdomen* with rather fine and shallow, sometimes submuricate, excavated punctures rather dense; without distinct ground sculpture. *Male*, eighth sternite with an acute triangular emargination about as deep as wide, with the angles broadly rounded, surrounded by a narrow gutter. *Female*, unknown. Length, 12 mm.

Type locality.—Trinidad, St .Augustine.

Types.—Holotype, male, in the Museum of Comparative Zoology, collected in April 1929 by Dr. P. J. Darlington.

Records.—The following is the only record known to me:

Trinidad: St. Augustine (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the unique type.

Remarks.—This species is readily distinguished from all others in our fauna by the parallel pronotum. It is the only species so far known from Trinidad.

I have received no record of its habits.

5. PINOPHILUS SUBTERRANEUS, new species

Description.—Rufous to rufopiceous. *Head* with sparse, coarse punctures, mostly in groups, and with numerous fine punctulae; without ground sculpture, surface shining. *Pronotum* a little broader than long, arcuately narrowed into base; with moderately coarse punctures generally separated by one-fourth their diameter; without smooth midline; without ground sculpture but with an occasional punctule. *Elytra* shorter than pronotum, narrower than abdomen; with punctures about as on pronotum, the intervals a little more convex; without ground sculpture. *Abdomen* a little less coarsely but more densely punctate than elytra; without distinct sculpture on the intervals. *Male*, eighth sternite with a shallow rounded emargination about one-fifth as deep as wide. *Female*, sternites not modified. Length, 16 to 19 mm.

Type locality.—Cuba, Buenos Aires in the Trinidad Mountains, elevation 2,500 to 3,500 feet.

Types.—Holotype, male, and one paratype, female, in Museum of Comparative Zoology; one paratype, female, in the United States National Museum (No. 52516); collected on May 8–14, 1936, by Dr. P. J. Darlington.

Records.—The following is the only record known to me:

Cuba: Trinidad Mountains (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the three types.

Remarks.—This species has a peculiar subterranean habitus that is distinct from all others except *darlingtoni.* From that it is distinguished by the flat elytral intervals, as well as by the male characters.

I have received no record of its habits.

6. PINOPHILUS DARLINGTONI, new species

Description.—Piceous, apex of abdomen rufous. *Head* with scattered coarse punctures, usually in groups, and with rather dense coarse punctulae separated by one to three times their diameter; without ground sculpture, shining. *Pronotum* a little broader than long, arcuately narrowed into base; with moderately coarse punctures generally separated by less than half their diameter; without smooth midline; without ground sculpture, but with an occasional punctule. *Elytra* shorter than pronotum, narrower than abdomen; punctures not as coarse as on pronotum but denser, the intervals distinctly rugose but without ground sculpture. *Abdomen* with punctures rather fine, very shallow, and widely excavated behind; with strong ground sculpture in the punctures and indistinctly on the intervals. *Male*, eighth sternite with a triangular emargination half as deep as wide with all angles rounded. *Female*, eighth sternite feebly broadly lobed behind. Length, 17 to 18 mm.

Type locality.—Jamaica, main range of the Blue Mountains, elevation 5,000 to 7,388 feet.

Types.—Holotype, male, and one paratype, female, in the Museum of Comparative Zoology; one paratype, female (No. 52517), in the United States National Museum; collected on August 17–19, 1934, by Dr. P. J. Darlington.

Records.—The following is the only record known to me:

Jamaica: Blue Mountains (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the three types.

Remarks.—This is our largest species and one of two so far found in Jamaica. It is distinguished by its subterranean habitus and its rugose elytral intervals.

I have received no record of its habits.

7. PINOPHILUS JAMAICENSIS, new species

Description.—Piceous. *Head* with scattered large punctures usually in groups, sparsely interspersed with rather coarse punctulae; without ground sculpture. *Pronotum* a trifle broader than long, arcuately narrowed to rounded basal angles; with very coarse punctures usually separated by half their diameter or less; without smooth midline; with occasional punctulae on the intervals becoming dense near basal angles. *Elytra* shorter than pronotum, narrower than abdomen; punctures less coarse or distinct than on pronotum but denser, the intervals somewhat convex and rugose, and with traces of ground sculpture. *Abdomen* with dense punctures excavated and submuricate, almost indistinguishable; without distinct ground sculpture. *Male*, unknown. *Female*, sternite not modified. Length, 12½ mm.

Type locality.—Jamaica, main range of Blue Mountains, elevation 5,000 to 7,388 feet.

Types.—Holotype, female, in the Museum of Comparative Zoology, collected on August 17–19, 1934, by Dr. P. J. Darlington.

Records.—The following is the only record known to me:

Jamaica: Blue Mountains (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the holotype.

Remarks.—This is also a species of subterranean habitus. It differs greatly from *darlingtoni* in size as well as the distribution of punctulae on the pronotum. I have not hesitated to describe it from a single female because of its distinctness and the scarcity of material from the high mountain regions.

I have received no record of its habits.

8. PINOPHILUS BIERIGI, new species

Description.—Black, front margin of head and apex of abdomen rufescent. *Head* with a few very large punctures between and in front of the eyes, and with rather dense punctulae throughout. *Pronotum* with moderately large and not sparse punctures separated by flat intervals, the latter densely punctulate, the punctures densely sculptured within. *Elytra* with strong punctures separated by their diameter or less by moderately convex intervals; surface strongly coriaceous. *Abdomen* with moderately coarse but very shallow punctures, each densely sculptured within and some feebly submuricate. *Male*, eighth sternite strongly produced into a rounded lobe. *Female*, unknown. Length, 11 mm.

Type locality.—Puerto Rico, Mayagüez.

Types.—Holotype, male, U.S.N.M. No. 52473, collected by A. Suro on September 15, 1930.

Records.—The following is the only record known to me:

Puerto Rico: Mayagüez (Suro, in U.S.N.M.).

Specimens examined.—I have seen only the unique type.

Remarks.—This species may be distinguished by the dense punctulae of the head, as outlined in the key. It belongs in the same group as *aguayoi* and *flavipes*, of which the status is not certain. It was kindly presented to the National Museum by Dr. S. T. Danforth, of Mayagüez.

I have no record of its habits.

9. PINOPHILUS FLAVIPES Erichson

Pinophilus flavipes ERICHSON, 1840, p. 674.—MOTSCHULSKY, 1857, p. 516.—SHARP, 1886, p. 621.—BERNHAUER and SCHUBERT, 1912, p. 193.—LENG and MUTCHLER, 1914, p. 404.—WOLCOTT, 1924, p. 78; 1936, p. 196.

Description.—Black, posterior border of abdominal segments rufescent. *Head* with about five very large punctures on each side between and in front of the eyes, and with numerous rather small punctures interspersed with minute punctulae, the latter more sparse in front; without ground sculpture. *Pronotum* with large and moderately dense punctures, the intervals flat and rather densely minutely punctulate; the large punctures also very densely sculptured inside; with a narrow irregular impunctate midline. *Elytra* with strong punctures separated by their diameter or less by strongly convex intervals; without distinct ground sculpture. *Abdomen* very coarsely but not sparsely punctate, the punctures either excavated behind or submuricate; with rather indistinct transverse strigulae. *Male*, eighth sternite feebly truncate. *Female*, eighth sternite with a moderately large rounded lobate expansion. Length, 12 to 16 mm.

Type locality.—Puerto Rico.

Types.—Either in the Hope Museum, Oxford, or in the Zoologische Museum, Berlin.

Records.—The following are the records known to me:

Bahamas: Cat Island (Darlington, in M.C.Z. and U.S.N.M.).

Cuba: Cayamas (Schwarz, in U.S.N.M.), Baragua (Stahl and Christenson, in U.S.N.M.; Scaramuzza and Stahl, in M.C.Z. and U.S.N.M.), Laguna La Canoa (Bierig collection and U.S.N.M.), Soledad (Darlington, in M.C.Z. and U.S.N.M.), Central Jaronu (Scaramuzza, in M.C.Z.).

Caymans: GRAND CAYMAN (Lewis, in Oxford University collection and U.S.N.M.).

Hispaniola: DOMINICAN REPUBLIC, Barahona (Darlington, in M.C.Z. and U.S.N.M.).

Puerto Rico: (Erichson, 1840; Sharp, 1886; Bernhauer and Schubert, 1913; Leng and Mutchler, 1914; Wolcott, 1924, 1936).

Specimens examined.—I have seen 10 examples in the United States National Museum, 11 from the Museum of Comparative Zoology, and 5 from Oxford University.

Remarks.—This species is somewhat variable but may be recognized by the presence of the three distinct sizes of punctures on the head. The related species lack the middle size entirely though having the minute punctulae more variable.

Most specimens were taken at light, but I have seen examples labeled "from mud along river."

10. PINOPHILUS HISPANIOLUS, new species

Description.—Black or piceous. *Head* with scattered large punctures usually in groups, interspersed with small punctures and minute punctulae; without ground sculpture. *Pronotum* with rather large and dense punctures usually separated by less than half their diameter, the intervals flat and rather sparsely minutely punctulate; the large punctures densely sculptured within; without distinctly impunctate midline. *Elytra* with punctures as large as on pronotum, dense and separated by convex rugose intervals; without distinct ground sculpture. *Abdomen* with punctures rather fine and dense, shallow and excavated behind, sometimes submuricate, always sculptured within; without distinct ground sculpture. *Male*, eighth sternite broadly truncate. *Female*, sternites not modified. Length, 11 to 13 mm.

Type locality.—Dominican Republic, Sánchez.

Types.—Holotype, male, in Museum of Comparative Zoology; one paratype, female, in the United States National Museum (No. 52541); collected in July 1938 by Dr. P. J. Darlington. Another paratype in the Museum of Comparative Zoology from Étang Lachaux in Haiti.

Records.—The following are the records known to me:

Hispaniola: HAITI, Étang Lachaux (Darlington, in M.C.Z.); DOMINICAN REPUBLIC, Sanchez (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the three types.

Remarks.—This species may be distinguished from *flavipes* by its dense punctation and by the very different aedeagus of the male. From *aguayoi* it is distinguished by the aedeagus as well as a slight difference in the shape of the eighth sternite.

I have received no record of its habits.

11. PINOPHILUS AGUAYOI Bierig

Pinophilus aguayoi BIERIG, 1935b, p. 29, pl. 3, fig. 1.

Description.—Black. *Head* with a few large punctures between and before the eyes interspersed with small punctures and punctulae; without ground sculpture. *Pronotum* with very large and rather dense punctures usually separated by half their diameter or less and completely filled with dense ground sculpture; the intervals rather densely irregularly punctulate. *Elytra* with rather coarse punctures separated by their diameter or less by strongly convex intervals, somewhat obscured; without distinct ground sculpture. *Abdomen* moderately coarsely but not sparsely punctate, sometimes submuricately; with indistinct transverse strigulae. *Male*, eighth sternite somewhat produced and narrowly truncate. *Female*, sternites not modified. Length, 8½ mm.

Type locality.—Cuba.

Types.—In collection of Alexander Bierig. One "cotype" is in the United States National Museum (No. 52716).

Records.—The following are the records known to me:

Cuba: Habana (Bierig, 1935; U.S.N.M.); Cumanayagua (Bierig, 1935), El Rangel (Bierig, 1935), Aspiro (Bierig, 1935), Soledad (Darlington, in M.C.Z. and U.S.N.M.), Aguadores, in Oriente (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the paratype in the United States National Museum and five examples collected by Dr. Darlington.

Remarks.—This species is distinguished by its sparse punctulae on the head and the very dense sculpture of the pronotum, but more particularly by the aedeagus of the male. It is one of a group of species occurring throughout the New World which can be distinguished with certainty only by the male characters. This group includes the West Indian *bierigi*, *aguayoi*, *flavipes*, and *hispaniolus*, the North American *latipes* and *parcus*, the Central American *albipes*, *erythropterus*, *sejunctus*, *panamensis*, *guatemalenus*, *iners*, and *lineaticollis*, and the South American *suffusus*.

I find no record of the habits of this species.

12. PINOPHILUS INSIGNIVENTRIS Bernhauer

Pinophilus insigniventris BERNHAUER, 1918, p. 65.—SCHEERPELTZ, 1933, p. 1208.

Description.—Black. *Head* extremely finely and moderately densely punctate and with a number of coarse large punctures; with fine and dense ground sculpture. *Pronotum* rather strongly and densely punctate except along midline; very distinctly and extremely densely reticulately sculptured. *Elytra* with deep dense punctures, the intervals more or less united into ridges, but shining. *Abdomen* finely and somewhat densely submuricately punctate; with ground sculpture. *Sexes* not distinguished. Length, 8 mm. (From Bernhauer.)

Type locality—Guadeloupe.

Types.—In the collection of Dr. Max Bernhauer.

Records.—The following is the only record known to me:

Guadeloupe: (Bernhauer, 1918).

Specimens examined.—I have not seen examples of this species.

Remarks.—This species is very similar to *schwarzi* from Cuba. It differs as described principally in having an impunctate midline on the pronotum but will probably be distinguished by the male aedeagus when there is ample material available.

I find no record of its habits.

13. PINOPHILUS SCHWARZI, new species

Description.—Black or piceous. *Head* with large, scattered, somewhat umbilicate punctures and a few minute punctulae; with dense reticulate ground sculpture except in front. *Pronotum* with punctures a little smaller than on head, somewhat obscured by very dense reticulate ground sculpture but often separated by their diameter; without distinct midline. *Elytra* with deep and strong punctures as large as those on head separated by their diameter or less by feebly convex intervals; without distinct ground sculpture. *Abdomen* with moderately coarse excavated or submuricate punctures; ground sculpture indistinct except in punctures. *Male*, eighth sternite somewhat triangularly produced. *Female*, eighth sternite rounded. Length, 9 to 11 mm.

Type locality.—Cuba, Cayamas, 15 miles west-northwest of Cienfuegos, province of Santa Clara.

Types.—Holotype, female, U.S.N.M. No. 52474, collected by E. A. Schwarz; one paratype from Soledad, Cuba, in the Museum of Comparative Zoology; 16 paratypes from the Cayman Islands in the Oxford University collection and 7 in the United States National Museum, collected by Dr. C. B. Lewis.

Records.—The following are the records known to me:

Cuba: Cayamas (Schwarz, in U.S.N.M.). Soledad (Darlington, in M.C.Z.).
Caymans: GRAND CAYMAN (Lewis, in Oxford University and U.S.N.M.).

Specimens examined.—I have seen only the 25 types.

Remarks.—This species is similar only to *insigniventris* which is not available for comparisons. If differs from all other West Indian *Pinophilus* in the dense reticulate ground sculpture.

I have no record of its habits.

LX. Genus ARAEOCERUS Nordmann

Araeocerus NORDMANN, 1836, p. 7.
Aracocerus NORDMANN, 1836, p. 157 (misspelling).
Subgenus *Scotocerus* BERNHAUER, 1918, p. 67.
Araeocrus FALL, 1932, p. 58 (misspelling).
Arcocerus FALL, 1932, p. 58 (misspelling).

Genotypes.—*A. niger* Nordmann (monobasic). Of *Scotocerus*, *Araeocerus* (*Scotocerus*) *curtipennis* Bernhauer (designated here).

Diagnosis.—Head margined beneath the eyes; antennae inserted at sides of head close to eyes; labrum very short, almost bilobed; mandibles very slender, without teeth; fourth segment of maxillary palpus large and obliquely hatchet-shaped; gular sutures separate but approximate from posterior fifth to middle; hypomera prolonged in a lobe partly behind the coxae; prosternum expanded laterally beneath coxae and united with hypomera; front coxae very large, exserted;

posterior coxae approximate, "conical"; abdomen margined at sides, first and second sternites absent, third longitudinally carinate at base; tarsi 5-segmented.

Remarks.—This diagnosis was taken from the specimen of *parvipennis* in my own collection. Other species were not available for comparison. The genus is distinguished from *Pinophilus* only by the absence of the large median tooth on the mandible. This seems to be scarcely sufficient justification for the separation, but it will be followed here until further studies are made.

Only one species has so far been found in the West Indies.

1. ARAEOCERUS PARVIPENNIS Bierig

Araeocerus parvipennis BIERIG, 1935b, p. 30, pl. 3, figs. 2, 3.

Description.—Black to rufocastaneous. *Head* quadrate; eyes separated from base by scarcely their length; labrum transverse, with a deep rounded notch at middle; with a few scattered very large and deep punctures and with very fine and indistinct ground sculpture. *Pronotum* with sides feebly curved, somewhat narrowed posteriorly, with an indistinct smooth median line; punctures relatively fine, irregular, the intervals usually about half their diameter; with ground sculpture as on head. *Elytra* shorter than pronotum, narrower than abdomen; with punctures a little larger than on pronotum and separated usually by less than half their diameter; without ground sculpture. *Abdomen* with moderately coarse and shallow excavated punctures, the intervals with vague ground sculpture. *Male*, seventh sternite broadly and feebly emarginate; eighth with a rounded emargination over four times as wide as deep. *Female*, sternites not modified. Length, 9 to 12 mm.

Type locality.—Cuba.

Types.—In the collection of Alexander Bierig. (One "cotype" is in the collection of the writer.)

Records.—The following are the records known to me:

Cuba: Playa de Marianao (Bierig, 1935), El Rangel (Bierig, 1935), La Lisa (Bierig, 1935), Sierra Bonilla (Bierig, 1935), Aspiro (Bierig, in Blackwelder collection), Rangel Mountains in Pinar del Rio (Darlington, in M.C.Z.), Gran Piedra Range in Oriente (Darlington, in M.C.Z.), Loma del Gato in Oriente (Darlington, in U.S.N.M.), Buenos Aires, Trinidad Mountains (Darlington, in U.S.N.M).

Specimens examined—I have seen only one example in my own collection, received some years ago from Sr. Bierig, and four collected by Dr. Darlington.

Remarks.—This species is very distinct from the other West Indian Pinophilini. It has a distinct subterranean habitus and an unusually distinct ground sculpture.

It was originally captured by sifting fallen leaves.

LXI. Genus PALAMINUS Erichson

Palaminus ERICHSON, 1840, p. 681.

Genotype.—*P. pilosus* Erichson (designated by Duponchel, 1841).

Diagnosis.—Antennae inserted at sides of head close to eyes; labrum very short; fourth segment of maxillary palpus obliquely hatchet-shaped; gular sutures separate; hypomera feebly lobed behind the coxae; prosternum expanded beneath the coxae and broadly united with the hypomera; front coxae large, exserted; middle coxal cavities confluent; posterior coxae contiguous, "conical"; abdomen not margined, first and second sternites absent, third longitudinally carinate at base; middle tibia not spinose on outer side; tarsi 5-segmented.

Remarks.—This extensive genus is well represented in the West Indies. Although many species have been described, there has been almost no attempt to determine the extent and limits of specific variation. This is true for all the other parts of the Western Hemisphere as well. Although the present collection contains about 100 examples, and I have seen about 80 in other collections, I feel unable to determine the variation in characters which have been used as of primary importance. Since only five species have been definitely recognized by comparison with types, it seems premature to attempt to give a key to all the known species. Therefore, in the present study I am presenting a summary of the records and data so far published with additional records of which there is reasonable certainty, and I am omitting keys, descriptions, and new species.

1. PALAMINUS ANACORETA Bierig

Palaminus anacoreta BIERIG, 1935b, p. 34, pl. 3, fig. 7.

Type locality.—Cuba, Portugalete, province of Habana.

Types.—Unique type in collection of Alexander Bierig.

Records.—The following is the only record known to me:

Cuba: Portugalete (Bierig, 1935).

Specimens examined.—I have seen no examples of this species.

2. PALAMINUS APTERUS Bernhauer

Palaminus apterus BERNHAUER, 1918, p. 82.—NOTMAN, 1929, pp. 9, 17.—BIERIG, 1935b, p. 38.—SCHEERPELTZ, 1933, p. 1213.

Type locality.—Guadeloupe.

Types.—In collection of Dr. Max Bernhauer.

Records.—The following are the records known to me:

Guadeloupe: (Bernhauer, 1918; Notman, 1929, A.M.N.H.).

Specimens examined.—I have seen no examples of this species.

3. PALAMINUS BERMUDEZI Bierig

Palaminus bermudezi Bierig, 1935b, p. 35, pl. 4, figs. 2, 3.

Type locality.—Cuba, Sierra del Rosario, vicinity of El Rangel.

Types.—In collection of Alexander Bierig.

Records.—The following is the only record known to me:

Cuba: Sierra del Rosario (Bierig, 1935).

Specimens examined.—I have seen no examples of this species.

4. PALAMINUS BIFIDUS Notman

Palaminus bifidus Notman, 1929, pp. 9, 14.—Scheerpeltz, 1933, p. 1213.—Bierig, 1935b, p. 36.—Wolcott, 1936, p. 196.

Type locality.—Puerto Rico, El Yunque.

Types.—Holotype, male, allotype and four other paratypes, in the American Museum of Natural History.

Records.—The following are the records known to me:

Puerto Rico: El Yunque (Notman, 1929; Wolcott, 1936), Aibonito (Notman, 1929; Wolcott, 1936), Adjuntas (Notman, 1929; Wolcott, 1936).

Specimens examined.—I have examined the six types and two other examples in the American Museum of Natural History.

5. PALAMINUS BRUCHIANUS Bierig

Palaminus bruchianus Bierig, 1935b, pp. 36, 37, 38, pl. 3, figs. 8, 9.

Type locality.—Cuba, Playa de Marianao.

Types.—In collection of Alexander Bierig.

Records.—The following is the only record known to me:

Cuba: Playa de Marianao (Bierig, 1935).

Specimens examined.—I have seen no examples of this species.

6. PALAMINUS CORIACEUS Cameron

Palaminus coriaceus Cameron, 1913b, p. 331.—Leng and Mutchler, 1917, p. 198.—Notman, 1929, pp. 9, 17.—Scheerpeltz, 1933, p. 1214.—Bierig, 1935b, p. 36.

Type locality.—Jamaica.

Types.—In the collection of Dr. Cameron. (This species was originally recorded from "Jamaica, Haiti." I found three specimens in the Cameron collection, one from Jamaica and one from Haiti, both being labeled type. I hereby designate the Jamaican type to be lectotype of this species.)

Records.—The following are the records known to me:

Cuba: Cayamas (Schwarz, in United States National Museum).

Jamaica: (Cameron, 1913; Leng and Mutchler, 1914; Notman, 1929; Cameron collection).

Hispaniola: Haiti (Cameron, 1913; Leng and Mutchler, 1917; Cameron collection).

Specimens examined.—I have seen the type and two other examples in Dr. Cameron's collection, and two in the United States National Museum.

7. PALAMINUS DUBIUS Notman

Palaminus dubius NOTMAN, 1929, pp. 11, 16.—SCHEERPELTZ, 1933, p. 1214.

Type locality.—Guadeloupe, Gourbeyre.

Types.—Unique holotype in American Museum of Natural History.

Records.—The following is the only record known to me:

Guadeloupe: Gourbeyre (Notman, 1929).

Specimens examined.—I have seen only the unique type.

8. PALAMINUS GRANDICOLLIS Notman

Palaminus grandicollis NOTMAN, 1929, pp. 9, 16.—SCHEERPELTZ, 1933, p. 1215.—WOLCOTT, 1936, p. 197.

Type locality.—Puerto Rico, Aibonito.

Types.—Holotype (male), allotype, and one other paratype, in American Museum of Natural History.

Records.—The following are the records known to me:

Puerto Rico: Aibonito (Notman, 1929; Wolcott, 1936), Adjuntas (Notman, 1929; Wolcott, 1936).

Specimens examined.—I have seen the three types and one other specimen in the American Museum of Natural History.

9. PALAMINUS HYLAEUS Bierig

Palaminus hylaeus BIERIG, 1935b, pp. 32, 33, 34, pl. 3, fig. 10.

Type locality.—Cuba.

Types.—In collection of Alexander Bierig. (A cotype is in the United States National Museum, No. 52717.)

Records.—The following are the records known to me:

Cuba: Playa de Marianao (Bierig, 1935), Sierra Bonilla (Bierig, 1935), Sierra del Rosario, Cayajabos (Bierig, 1935), Aspiro (Bierig, 1935), Corralillo (Santa Clara) (Bierig, 1935), Habana (Bierig, in United States National Museum).

Specimens examined.—I have seen only one example in the United States National Museum.

10. PALAMINUS INSULARIS Cameron

Palaminus insularis CAMERON, 1913b, pp. 331, 332.—LENG and MUTCHLER, 1917, p. 198.—NOTMAN, 1929, p. 12, 17.—SCHEERPELTZ, 1933, p. 1215.—WOLCOTT, 1936, p. 197.

Type locality.—Jamaica, Hope Gardens district.

Types.—Unique holotype in collection of Dr. Cameron.

Records.—The following are the records known to me:

Jamaica: (Leng and Mutchler, 1917; Notman, 1929), Hope Gardens (Cameron, 1913; Cameron collection).

Puerto Rico: Aibonito (Notman, 1929; Wolcott, 1936).
Guadeloupe: Gourbeyre (Notman, 1929).

Specimens examined.—I have seen only the unique type.

11. PALAMINUS LENGI Notman

Palaminus lengi NOTMAN, 1929, pp. 8, 14.—SCHEERPELTZ, 1933, p. 1215.—WOLCOTT, 1936, p. 196.

Type locality.—Puerto Rico, Adjuntas.

Types.—Holotype, female, in the American Museum of Natural History.

Records.—The following are the records known to me:

Puerto Rico: Adjuntas (Notman, 1929; Wolcott, 1936; A.M.N.H.; Oakley, in U.S.N.M.), Mayagüez (Dozier, in U.S.N.M.).

Specimens examined.—I have seen the six types in the American Museum of Natural History and two examples in the United States National Museum.

12. PALAMINUS PARVIPENNIS Notman

Palaminus parvipennis NOTMAN, 1929, pp. 9, 14.—SCHEERPELTZ, 1933, p. 1215.—WOLCOTT, 1936, p. 196.

Type locality.—Puerto Rico, El Yunque.

Types.—Holotype (male), allotype and four other paratypes in the American Museum of Natural History.

Records.—The following are the records known to me:

Puerto Rico: El Yunque (Notman, 1929; Wolcott, 1936), Loiza (Notman, 1929; WOLCOTT, 1936), Villalba (Blackwelder station 64), Mayagüez (Dozier, in U.S.N.M.).

Specimens examined.—I have seen the six types in the American Museum of Natural History, two examples in the United States National Museum, and one collected by me in 1935–37.

13. PALAMINUS PERALUTACEUS Bierig

Palaminus peralutaceus BIERIG, 1935b, p. 37, pl. 3, figs. 11, 12, pl. 4, figs. 1.

Type locality.—Cuba, Sierra del Rosario, vicinity of El Rangel.

Types.—In the collection of Alexander Bierig.

Records.—The following is the only record known to me:

Cuba: Sierra del Rosario (Bierig, 1935).

Specimens examined.—I have seen no examples of this species.

14 PALAMINUS PILUM Bierig

Palaminus pilum BIERIG, 1935b, pp. 33, 34, 36, pl. 3, figs. 4–6.

Type locality.—Cuba.

Types.—In the collection of Alexander Bierig.

Records.—The following are the records known to me:

Cuba: Portugalete (Bierig, 1935), Sierra de Anafe (Bierig, 1935), Sierra del Rosario, Aspiro (Bierig, 1935).

Specimens examined.—I have seen no examples of this species.

15. PALAMINUS PROCERUS Notman

Palaminus procerus NOTMAN, 1929, pp. 13, 16.—SCHEERPELTZ, 1933, p. 1216.—WOLCOTT, 1936, p. 197.

Type locality.—Puerto Rico, Aibonito.

Types.—Holotype and one paratype, males in the American Museum of Natural History.

Records.—The following are the records known to me:

Puerto Rico: Aibonito (Notman, 1929; Wolcott, 1936), Maricao (Morrison, in U.S.N.M.).

Specimens examined.—I have seen only the two fragmentary types in the American Museum of Natural History and one example in the United States National Museum.

16. PALAMINUS PUSILLUS Notman

Palaminus pusillus NOTMAN, 1929, pp. 9, 15.—SCHEERPELTZ, 1933, p. 1216.—WOLCOTT, 1936, p. 197.

Palaminus pusilus BIERIG, 1935, p. 36.

Type locality.—Puerto Rico, El Yunque.

Types.—Unique holotype in the American Museum of Natural History.

Records.—The following is the only record known to me:

Puerto Rico: El Yunque (Notman, 1929; Wolcott, 1936).

Specimens examined.—I have seen only the unique type.

17. PALAMINUS ROSARIENSIS Bierig

Palaminus rosariensis BIERIG, 1935b, p. 38, pl. 4, fig. 4.

Type locality.—Cuba.

Types.—In the collection of Alexander Bierig.

Records.—The following are the records known to me:

Cuba: Cayajabos (Bierig, 1935), Rio Taco-Taco (Bierig, 1935).

Specimens examined.—I have seen no examples of this species.

18. PALAMINUS SCITULUS Notman

Palaminus scitulus NOTMAN, 1929, pp. 9, 15.—SCHEERPELTZ, 1933, p. 1216.—BIERIG, 1935, p. 36.—WOLCOTT, 1936, p. 197.

Type locality.—Puerto Rico, Aibonito.

Types.—Holotype, male, and allotype in the American Museum of Natural History.

Records.—The following is the only record known to me:

Puerto Rico: Aibonito (Notman, 1929; Wolcott 1936).

Specimens examined.—I have seen only the two types.

19. PALAMINUS VARIABILIS Erichson

Palaminus variabilis ERICHSON, 1840, p. 683, pl. 1, fig. 8.—LACORDAIRE, 1854, p. 104.—SHARP, 1876, p. 340.—FLEUTIAUX and SALLÉ, 1889, p. 381.—BERNHAUER and SCHUBERT, 1912, p. 201.—CAMERON, 1913b, p. 331.—LENG and MUTCHLER, 1914, p. 404.—GOWDEY, 1926, p. 12.—NOTMAN, 1929, p. 12.—SCHEERPELTZ, 1933, p. 1217.

Type locality.—"In Columbia et in Americae meridionalis ins. Puerto-Rico et St. Thomae."

Types.—Either in the Hope Museum, Oxford, or the Zoologische Museum, Berlin.

Records.—The following are the records known to me:

Jamaica: (Gowdey, 1926).
Puerto Rico: (Erichson, 1840).
St. Thomas: (Erichson, 1840).
Guadeloupe: (Fleutiaux and Sallé, 1889; Leng and Mutchler, 1914).
St. Vincent: (British Museum; Cameron collection).
Grenada: (British Museum; Cameron collection).
Trinidad: San Fernando Hill (Morrison, in U.S.N.M.), Palo Seco (Morrison, in U.S.N.M.), D'Abadie (Morrison, in U.S.N.M.), Port of Spain (Morrison, in U.S.N.M.), Montserrat (Busck, in U.S.N.M.).
South America: COLOMBIA (Erichson, 1840; Lacordaire, 1854), VENEZUELA (Bernhauer and Schubert, 1912).
Central America: (Bernhauer and Schubert, 1912).

Specimens examined.—I have seen 33 examples in the British Museum, 5 in Dr. Cameron's collection, and 21 in the United States National Museum.

Subfamily STAPHYLININAE

This large subfamily contains most of the large species of Staphylinidae. It is readily distinguished by the characters used in the key from all except the Paederinae, and from these it is known by characters discussed in the introductory remarks to that group.

Four rather distinct groups of genera occur in this subfamily. In recent works they have usually been treated as tribes, viz: Xantholinini, Staphylinini, Xanthopygini, and Quediini. As pointed out previously (Blackwelder, 1940) these four are not of equal rank, since the Xantholinini differ more from all the others than they do among themselves. Relationships are therefore better shown by using two tribes, the Xantholinini and the Staphylinini, and then dividing the latter into three subtribes, the Staphylinina, the Xanthopygina, and the Quediina. For convenience the genera of the three last subtribes are arranged in a single key to the tribe.

KEY TO TRIBES OF STAPHYLININAE

1. Bases of antennae approximate; prosternum with a pair of sclerites in front of the sternite ---------- Xantholinini
   Bases of antennae distant; prosternum without anterior sclerites. Staphylinini

Certain genera that have been placed in the Xantholinini are herein transferred to the Staphylinini. It is possible that a new subtribe will have to be erected for them there, but they certainly have nothing to do with the Xantholinini. These are *Diochus* and *Holisus* (both of them having been previously transferred by certain writers). To these I now add *Cephaloxynum*, proposed by Bernhauer in the Piestini but surely a member of this group closely related to *Holisus*. Both of the characters used above will distinguish these and all other Staphylinini from all Xantholinini, so far as known to me.

KEY TO WEST INDIAN GENERA OF STAPHYLININI

1. Lateral margin of pronotum double ---------- 2
   Lateral margin of pronotum simple ---------- 13
2. Fourth segment of maxillary palpus much shorter and more slender than third ---------- 3
   Fourth segment of maxillary palpus nearly equal to or longer than third ---------- 5
3. Labrum large, prominent at middle ---------- LXXI. **Diochus**
   Labrum bilobed ---------- 4
4. Side of pronotum with two marginal lines not uniting anteriorly. LXXII. **Cephaloxynum**
   Side of pronotum with three marginal lines uniting before anterior angle. LXXIII. **Holisus**
5. Marginal lines of pronotum separate ---------- 6
   Marginal lines of pronotum united near apex ---------- 8
6. Head margined beneath the eyes ---------- 7
   Head not margined beneath the eyes ---------- LXVIII. **Creophilus**
7. Upper lateral line of pronotum extended around front angles and then united to lower ---------- LXX. **Philothalpus**
   Upper lateral line of pronotum not extended around front angles. LXIX. **Xanthopygus**
8. Posterior femora with two rows of spines beneath; gular sutures united in front ---------- LXIV. **Belonuchus**
   Posterior femora at most with one row of spines; gular sutures generally united only basally ---------- 9
9. Side piece of pronotum inflexed (or head margined beneath eyes) ---------- 10
   Side piece of pronotum not inflexed; head not at all margined beneath eyes ---------- LXII. **Paederomimus**
10. Head and pronotum with dense umbilicate punctures ---------- LXVII. **Staphylinus**
    Head and pronotum not densely umbilicately punctate ---------- 11

11. Fourth segment of maxillary palpus large, fusiform -------------------- 12
Fourth segment of maxillary palpus large near base but becoming very slender apically -------------------- LXVI. Erichsonius
12. Pronotum with impunctate median area and dense punctures at sides. LXV. Cafius
Pronotum virtually impunctate except for distinct series of punctures. LXIII. Philonthus
13. Antennae strongly geniculate -------------------- LXXV. Acylophorus
Antennae not geniculate -------------------- 14
14. Tarsi 5-4-4 -------------------- LXXVI. Atanygnathus
Tarsi 5-5-5 -------------------- LXXIV. Heterothops

LXII. Genus PAEDEROMIMUS Sharp

Paederomimus SHARP, 1885, p. 439.

Genotype.—*P. difformiceps* Sharp (at least implied by Sharp, and, if necessary, fixed here).

Diagnosis.—Head without dense umbilicate punctures, not margined beneath the eyes; antennae widely separated at front of head, outer segments densely pubescent from the fourth joint; labrum bilobed; palpi elongate and slender, fourth segment of maxillary longer than third, labial similar to maxillary; gular sutures united behind middle; lateral margin of pronotum double, lines united near the coxae; anterior coxal cavities entirely open behind; front coxae large, exserted; posterior coxae contiguous, "triangular"; first and second abdominal sternites absent; intersegmental membranes of abdomen with pattern of irregular rounded sclerotized areas arranged in longitudinal bands; femora unarmed.

Remarks.—This genus was established by Sharp for species formerly of the genus *Philonthus* but having the prosternum transversely divided into two regions of different texture and having the side pieces of the pronotum not inflexed. It is a large genus confined to tropical or subtropical America.

I have seen 33 examples of this genus from the West Indies. I assign these to four species, of which one appears to be new.

KEY TO WEST INDIAN SPECIES OF PAEDEROMIMUS

1. Abdomen rufotestaceous, segments six to seven piceous -------- 2. cribricollis
Abdomen at most with eighth segment testaceous -------------------- 2
2. Eighth tergite and sometimes posterior border of ninth rufotestaceous. 3. interjectus
Abdomen entirely piceous or black -------------------- 3
3. Dorsal pronotal series of six punctures -------------------- 4. lustralis
Dorsal pronotal series of four punctures -------------------- 1. tetricus

1. PAEDEROMIMUS TETRICUS, new species

Description.—Rufopiceous. *Head* quadrate with angles rounded; eyes separated from base by one-third more than their length; in front with a feeble median longitudinal impression nearly half as long as head; with large and somewhat impressed punctures scattered at sides; with very fine strigulose ground sculpture. *Pronotum* one-eighth longer than wide, widest at anterior fourth with anterior angles broadly rounded, feebly emarginately narrowed to rounded basal angles, base sinuate; dorsal series of four punctures, the first and fourth widely separated; and with about eight smaller lateral punctures; with ground sculpture as on head. *Elytra* with fine and dense punctures not very distinct but forming a coarsely irregular surface; without ground sculpture. *Abdomen* with fine but not dense submuricate punctures; without distinct ground sculpture. *Male*, unknown. *Female*, eighth sternite rounded. Length, 4½ mm.

Type locality.—Trinidad, Port of Spain.

Types.—Holotype, female, U. S. N. M. No. 52466, collected on "11.6" by August Busck.

Records.—The following is the only record known to me:

Trinidad: Port of Spain (Busck, in U.S.N.M.).

Specimens examined.—I have seen only the unique type.

Remarks.—This species differs from *lustralis* in having only four punctures in the pronotal series, and from the other West Indian species in its piceous color and the shape of the pronotum.

I have no record of its habits.

2. PAEDEROMIMUS CRIBRICOLLIS (Erichson)

Philonthus cribricollis ERICHSON, 1840, p. 487.—SHARP, 1885, p. 448.

Paederomimus cribricollis (Erichson) SHARP, 1885, pp. 448, 450.—BERNHAUER and SCHUBERT, 1914, p. 368.

Paederomimus trinidadensis BERNHAUER, 1915c, p. 296.—SCHEERPELTZ, 1933, p. 1376.

Description.—Head piceous, pronotum rufopiceous, elytra piceous with humeral third rufotestaceous, abdomen rufotestaceous with sixth and seventh segments picescent. *Head* suborbicular, eyes at less than their length from base; in front with a longitudinal impression nearly half as long as head; with large impressed punctures scattered at sides; surface smooth but with vague trace of strigulose ground sculpture. *Pronotum* nearly one-half longer than wide, widest in anterior third, emarginately narrowed to rounded posterior angles; dorsal series of four to six very large impressed punctures (five is apparently normal), and with about seven lateral punctures; surface smooth but with vague strigulae as on head. *Elytra* with large punctures separated by convex intervals of less than their diameter; without ground sculpture. *Abdomen* very sparsely and finely submuricately punctate; without trace of ground sculpture. *Male*, unknown. *Female*, eighth sternite rounded. Length, 7 mm.

Type locality.—"Columbia . . . , Mexico . . ." Of *trinidadensis*, Caparo, Trinidad.

Types.—In either the Hope Museum, Oxford, or the Zoologische Museum, Berlin. Of *trinidadensis*, presumably in collection of Dr. Bernhauer.

Records.—The following are the records known to me:

Grenada: (British Museum).

Trinidad: Caparo (Bernhauer, 1915, as *trinidadensis;* Scheerpeltz, 1933, as same; British Museum), Manzanilla (Blackwelder station 103A).

South America: COLOMBIA (Erichson, 1840; Sharp, 1885; Bernhauer and Schubert, 1914), VENEZUELA (Bernhauer and Schubert, 1914).

Central America: MEXICO (Erichson, 1840; Sharp, 1885, with doubt; Bernhauer and Schubert, 1914).

Specimens examined.—I have seen 11 examples from the West Indies in the British Museum and 2 collected by me on December 18, 1935.

Remarks.—The examples in the British Museum from Grenada were labeled *cribricollis* and the one from Trinidad *trinidadensis.* I am unable to find any difference between these or between the original descriptions. Brazilian examples of *cribricollis* also seem to be the same. This species is readily distinguished from the other West Indian species by its coloring.

My examples were found in rotting cocoa pods.

3. PAEDEROMIMUS INTERJECTUS Bernhauer

Paederomimus interjectus BERNHAUER, 1908b, p. 333.—BERNHAUER and SCHUBERT, 1914, p. 368.—LENG and MUTCHLER, 1914, p. 405.

Paederomimus smithi CAMERON, 1922, p. 121.—SCHEERPELTZ, 1933, p. 1376.

Description.—Piceous, elytral humerus and apex of abdominal segments rufescent, eighth segment rufotestaceous. *Head* suborbicular; eyes at one-third more than their length from base; in front with a median longitudinal impression, scarcely half as long as head; with very large impressed punctures scattered at sides; without distinct ground sculpture. *Pronotum* one-sixth longer than wide, widest at anterior angles, evenly narrowed to completely rounded base; dorsal series of six punctures, with a lateral series of five and several others; without distinct ground sculpture. *Elytra* with large punctures separated by convex intervals of about their diameter; without ground sculpture. *Abdomen* with sparse and moderately fine excavated or submuricate punctures; without ground sculpture. *Male*, unknown. *Female*, eighth sternite rounded. Length, 5 to 5½ mm.

Type locality.—St. Vincent, Windward side. Of *smithi*, St. Vincent, Windward side.

Types.—Presumably in collection of Dr. M. Bernhauer. Of *smithi*, in the British Museum.

Records.—The following are the records known to me:

St. Vincent: (Bernhauer, 1908; Leng and Mutchler, 1914; Cameron, 1922, as *smithi;* British Museum, as *smithi;* U.S.N.M.).

Specimens examined.—I have seen 12 examples in the British Museum and 7 in the United States National Museum.

Remarks.—These two species were undoubtedly described from material from the same lot collected by H. H. Smith. The examples in the United States National Museum are from the original series of *smithi*, received in exchange from the British Museum.

I find no record of the habits of this species.

4. PAEDEROMIMUS LUSTRALIS (Erichson)

Philonthus lustralis Erichson, 1840, p. 489.—Sharp, 1885, p. 438.

Paederomimus lustralis (Erichson) Sharp, 1885, p. 438.—Bernhauer and Schubert, 1914, p. 368.—Leng and Mutchler, 1914, p. 405.—Wolcott, 1924, p. 78; 1936, p. 197.

Paederomimus insularis Bernhauer, 1908, p. 333.—Bernhauer and Schubert, 1914, p. 368.—Leng and Mutchler, 1914, p. 405.

Description.—Black, more or less aeneous, elytra fuscoaeneous. *Head* subovate; with large impressed punctures scattered at sides. *Pronotum* one-half longer than wide; sides straight, parallel; base and posterior angles rounded; dorsal series of six punctures, and with five lateral punctures. *Elytra* densely and profoundly punctate. *Abdomen* densely and finely punctate. *Male*, eighth sternite profoundly bisinuate. *Female*, eighth sternite rounded. Length, 5 mm. (From Erichson.)

Type locality.—Puerto Rico. Of *insularis*, St. Thomas.

Types.—Either in the Hope Museum, Oxford, or the Zoologische Museum, Berlin. Of *insularis*, presumably in the collection of Dr. Max Bernhauer.

Records.—The following are the records known to me:

Puerto Rico: (Erichson, 1840; Leng and Mutchler, 1914, as both; Wolcott, 1924, 1936).

St. Thomas: (Bernhauer, 1908, as *insularis;* Bernhauer and Schubert, 1914).

Specimens examined.—I have seen no examples of this species.

Remarks.—Although the description of *insularis* is very brief and is almost entirely a comparison with *interjectus*, I believe it is possible to be reasonably certain that this is the species actually occurring in St. Thomas. It is distinguished by its black color and the six punctures in the pronotal series. In all but the latter character it is close to *tetricus*.

I find no record of its habits.

LXIII. Genus PHILONTHUS Stephens

Philonthus Stephens, 1829, p. 279.

Subgenus *Gabrius* STEPHENS, 1829, p. 279.
Subgenus *Bisnius* STEPHENS, 1829, p. 283.
 Gefyrobius THOMSON, 1860, p. 166.
 Gefyribus JOHANSEN, 1914, p. 388 (misspelling).
Cheilocolpus SOLIER, 1849, p. 320.
Subgenus *Rabigus* MULSANT and REY, 1875, p. 523.
Subgenus *Eccoptolonthus* BERNHAUER, 1912, p. 206.
Subgenus *Pseudophilonthus* BERNHAUER, 1915a, p. 302.
Subgenus *Onychophilonthus* NERESHEIMER and WAGNER, 1924, p. 156.
Subgenus *Nephronthus* BERNHAUER, 1932, p. 147.
 Nephrontus SCHEERPELTZ, 1934, p. 1732 (misspelling).

Genotypes.—*Staphylinus laminatus* Creutz=*Philonthus laminatus* (Creutz) (designated by Lacordaire, 1854). Of *Eccoptolonthus*, *Philonthus* (*Eccoptolonthus*) *conradti* Bernhauer (monobasic); of *Cheilocolpus*, *Staphylinus* (*Cheilocolpus*) *pyrostoma* Solier (designated here); of *Gabrius*, *G. suaveolens* Stephens (designated by Lacordaire, 1854); of *Gefyrobius*, *Staphylinus nitidulus* Gravenhorst=*Gefyrobius nitidulus* (Gravenhorst) (monobasic); of *Bisnius*, *Staphylinus cephalotes* Gravenhorst=*Bisnius cephalotes* (Gravenhorst) (designated by Lacordaire, 1854); of *Rabigus*, *Staphylinus pullus* Nordmann=*Rabigus pullus* (Nordmann) (designated by Tottenham, 1939); of *Nephronthus*, *Philonthus* (*Nephronthus*) *grandis* Bernhauer (monobasic); of *Onychophilonthus*, *Staphylinus marginatus* Fabricius=*Philonthus* (*Onychophilonthus*) *marginatus* (Fabricius) (monobasic); of *Pseudophilonthus*, *Philonthus* (*Pseudophilonthus*) *bicoloripennis* Bernhauer (monobasic).

Diagnosis.—Head and pronotum without dense umbilicate punctures, sometimes feebly margined beneath the eyes; antennae widely separated at front of head, outer segments pubescent from the fourth joint; labrum bilobed; palpi moderately slender, fourth segment of maxillary longer than third, labial similar to maxillary; gular sutures not united or only posteriorly; pronotum virtually impunctate except for longitudinal series, lateral margin double, the lines not united or only in front; anterior coxal cavities entirely open behind; front coxae large, exserted; posterior coxae contiguous, "triangular," sometimes with a small expansion over the base of the trochanter; first and second abdominal sternites absent; intersegmental membranes of abdomen with a pattern of irregular rounded sclerotized areas arranged in longitudinal rows; femora unarmed.

Remarks.—This genus is not distinguished from *Belonuchus* by characters of great importance or definiteness. The combination of femoral armature and united gular sutures will distinguish the West Indian species of *Belonuchus*, while in general they can be recognized by a somewhat different appearance.

A species was recently described by Bierig (1940) in this genus under the name *caribaeus*. A drawing of the head and pronotum was given, and in his remarks Bierig states that the species was identified by Kambousek as *Paederomimus* sp. Bierig believes, however, that it is a true *Philonthus* (s. str.) and describes it as such. Although most generic characters are not mentioned in the description, the figure raises doubts as to the generic assignment. It appears possible that the species really belongs in either *Paederomimus* or *Belonuchus*, but further examination of the types is necessary for a decision. Since I have no other source of information I list this as a doubtful *Philonthus* and give the original description in full. The characters given seem to be sufficient to carry it through the key to *silvaticus*. Since that species is likewise not now before me, I am unable to point out distinctions, if any do exist.

Fourteen species are recognized from the West Indies, but one of these is left undescribed for lack of material. I have examined over 650 examples from the West Indies.

KEY TO WEST INDIAN SPECIES OF PHILONTHUS

1. Pronotal series with three punctures 2
   Pronotal series with more than three punctures 3
2. Elytra very distinctly and coarsely punctate .... [17]
   Elytra rather finely and somewhat indistinctly punctate .... 1. hepaticus
3. Pronotal series with four punctures 4
   Pronotal series with more than four punctures 11
4. Head with row of four punctures between eyes 5
   Head without four punctures in row between eyes 10
5. Apex of elytra testaceous .... 9. flavolimbatus
   Apex of elytra at most very narrowly testaceous or indistinctly rufescent 6
6. Pronotum rufous or at least rufescent, not much narrowed in front 7
   Pronotum black (when mature), distinctly narrowed in front 9
7. Head elongate and distinctly broader posteriorly .... 2. thermarum
   Head not elongate and not broader posteriorly 8
8. Elytra densely and moderately finely punctate, apical margin and suture testaceous .... 5. discoideus
   Elytra not densely and rather coarsely punctate, margins not testaceous. 3. ventralis
9. Punctures of abdomen very fine and dense; elytra unicolorous. 7. longicornis
   Punctures of abdomen not fine or dense; elytra generally marked with rufous .... 8. varians
10. Punctures of elytra indistinct; abdomen sparsely punctate throughout. 4. audanti
    Punctures of elytra small but distinct; abdomen more densely punctate posteriorly .... 6. figulus
11. Sides of pronotum parallel or narrowed in front .... 14. havaniensis
    Pronotum narrowed posteriorly 12
12. Elytra shining bronze-green 13
    Elytra rufous or rufopiceous 14

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[17] A species known only from quarantine interceptions keys to this point but is left undescribed because of uncertainty as to its true habitat. It is believed to have originated in Cuba.

13. From Cuba ---------- 10. caribaeus
From Jamaica ---------- 11. silvaticus
14. Pronotal punctures very coarse and deep ---------- 13. trinitatis
Pronotal punctures moderate ---------- 12. waterhousei

1. PHILONTHUS HEPATICUS Erichson

Philonthus hepaticus Erichson, 1840, p. 451.
Philonthus vilis Erichson, 1840, p. 451.
Philonthus orphanus Erichson, 1840, p. 452.
Philonthus nanus Melsheimer, 1846, p. 36. (Not Gravenhorst, 1806.)
Philonthus cinctutus Melsheimer, 1846, p. 37.
Philonthus palleolus Melsheimer, 1846, p. 37.
Staphylinus rufipennis Solier, 1849, p. 317. (Not Fabricius, 1801; not Gravenhorst, 1802.)
Philonthus varicolor Boheman, 1858, p. 29. (Not *variicolor* Nordmann, 1837.)
Philonthus pyropterus Kraatz, 1859a, p. 12 (as new name for *rufipennis* Solier, not Gravenhorst).
Philonthus rufipennis (Solier) Fairmaire and Germain, 1861, p. 431. (Not Gravenhorst, 1802.)
Philonthus pauxillus Solsky, 1868, p. 133.
Philonthus cinctulus Horn, 1884, p. 223. (Error; not Gravenhorst, 1802.)
Philonthus parvimanus Sharp, 1885, p. 406.

Description.—Head black, pronotum rufopiceous, elytra and abdomen piceocastaneous with apical borders narrowly paler. *Head* suborbicular, posterior angles entirely rounded; eyes at about their length from base; disk impunctate except for two large punctures forming (with two supraocular) a row between the eyes; with very fine punctulae and strigulose ground sculpture. *Pronotum* one-twelfth longer than wide, distinctly narrowed in front with sides straight, with base completely rounded into sides; with two discal series of three punctures, and with about four lateral punctures; ground sculpture as on head. *Elytra* with moderate but rather indefinite punctures generally separated by their diameter or less and sometimes indistinctly submuricate; without ground sculpture. *Abdomen* finely and irregularly but not densely submuricately punctate; with only a trace of transverse ground sculpture. *Male*, eighth sternite with an abrupt triangular emargination twice as wide as deep; seventh sternite not at all emarginate. *Female*, eighth sternite rounded. Length, 4 to 7 mm.

Type locality.—"America septentrionali." Of *vilis*, St. Thomas; of *orphanus*, "Caracas Columbiae"; of *cinctutus*, *nanus*, and *palleolus*, Pennsylvania; of *parvimanus*, (Central America); of *pauxillus*, Mexico; of *rufipennis* and *pyropterus*, Chile; of *varicolor*, California.

Types.—Presumably in the Zoologische Museum, Berlin. Of *vilis* and *orphanus*, either in the Hope Museum, Oxford, or the Zoologische Museum, Berlin; of *cinctutus*, *nanus*, and *palleolus*, in the Museum of Comparative Zoology, Cambridge, Mass.; of *par-*

vimanus, presumably in the Zoologische Museum, Leningrad; of *rufipennis* and *pyropterus*, not known; of *varicolor*, in Naturhistorische Riksmuseum, Stockholm; of *pauxillus*, in Zoologische Museum, Leningrad.

Records.—The following are the records known to me:

Bahamas: Nassau (Busck, in U.S.N.M.).

Cuba: (Duval, 1857; Chevrolat and Fauvel, 1863; Leng and Mutchler, 1914; as *vilis*), Cayamas (Schwarz, in U.S.N.M.).

Jamaica: Santa Cruz (Blackwelder station 421), Spanish Town (Blackwelder station 377), Kingston (Blackwelder station 1C), Trinityville (Blackwelder station 428), Milk River (Blackwelder station 415), May Pen (Blackwelder station 425C), Gordon Town (Blackwelder stations 363B, 382, 383), Newport (Blackwelder station 412A), Troy (Blackwelder station 409).

Hispaniola: (Leng and Mutchler, 1914, as *vilis*); Haiti, Trouin (Blackwelder station 24B), St. Marc (Mann, in M.C.Z. and U.S.N.M.); Dominican Republic, Boca Chica (Blackwelder station 41), San José de las Matas (Blackwelder station 38; Darlington, in M.C.Z.), Mount Diego de Ocampo (Darlington, in M.C.Z. and U.S.N.M.), Sanchez (Darlington, in M.C.Z.).

Puerto Rico: Hormigueros and Lajas (Dozier, in U.S.N.M.), Maricao (Blackwelder station 47A), San Juan (Blackwelder stations 43A, 45, 345, 353B), Adjuntas (Blackwelder station 48C), Guanica (Smyth, in collection of Rio Piedras Experiment Station).

St. Thomas: (Erichson, 1840; Chevrolat and Fauvel, 1863; Leng and Mutchler, 1914; as *vilis*).

St. Croix: (Blackwelder stations 317, 325, 330).

St. Kitts: (Blackwelder stations 299, 302, 304, 306, 312).

Antigua: (Blackwelder stations 275A, 279B, 281A, 285B; H. E. Box, as Blackwelder stations 444K, 444O).

Montserrat: (Blackwelder stations 262, 265B, 270).

Guadeloupe: (Leng and Mutchler, 1914, as *vilis*), Basse Terre (Blackwelder stations 75, 78B).

Les Saintes: (Fleutiaux and Sallé, 1889, as *vilis*).

Dominica: (Blackwelder stations 252, 254B).

Barbados: (Blackwelder stations 193B, 194, 195, 201A, 203).

St. Vincent: (Blackwelder stations 168, 175).

Grenadines: Carriacou (Blackwelder station 144B).

Tobago: (Blackwelder stations 117A, 123).

Trinidad: Port of Spain (Blackwelder stations 115, 130).

South America: Venezuela (Fauvel, 1891), Argentina (Lynch, 1884), Chile (Solier, 1849; Fauvel, 1864; Fairmaire and Germain, 1861), Colombia (Erichson, 1840, as *orphanus*).

Central America: Mexico, Guatemala, Nicaragua, Panama (Sharp, 1885, as *hepaticus* and *vilis*), Mexico (Villada, 1901),

North America: (Erichson, 1840), California, Nevada, Arizona, Pennsylvania, Kansas (Boheman, 1858; Horn, 1884; Melsheimer, 1846).

Australia: (Fauvel, 1878).

Specimens examined.—I have seen from the West Indies 2 examples in the British Museum, 6 from the Museum of Comparative Zoology, 6 in the United States National Museum, and 148 collected by me during 1935–37. In addition series are available from North, Central, and South America.

Remarks.—This species occurs throughout the Americas. It is somewhat variable in coloring and in the distinctness of elytral and abdominal punctation. The description was drawn from a Jamaican series. With one possible exception, this is our only species with only three punctures in the pronotal series.

My specimens were collected from dung, manure, and excrement, from under seaweed on the beach, from rubbish along streams, from among decaying forest debris, and flying at dusk.

2. PHILONTHUS THERMARUM Aubé

Philonthus thermarum AUBÉ, 1850, p. 316.
Philonthus exilis KRAATZ, 1851, p. 293.
Philonthus angustatus KRAATZ, 1859b, p. 92.
Philonthus pygmaeus KRAATZ, 1859b, p. 93. (Not Snellen.)
Gabrius fuscolaterus MOTSCHULSKY, 1859, p. 76.
Xantholinus inclinans WALKER, 1859, p. 51.
Gabrius thermarum (Aubé) MULSANT and REY, 1877a, p. 546.
Philonthus fuscolaterus (Motschulsky) FAUVEL, 1903b, p. 271.
Philonthus inclinans (Walker) FAUVEL, 1903b, p. 271.
Philonthus (*Gabrius*) *thermarum* Aubé, REITTER, 1909, p. 131.

Description.—Head black or piceous, pronotum piceous to rufous, elytra and abdomen castaneous, paler at sides and sometimes picescent. *Head* ovate, slightly wider behind the eyes, basal angles moderately rounded; eyes at nearly twice their length from base; disk impunctate except for two large punctures forming (with the two supraocular) a row between the eyes, and a similar pair posterior to these; with very fine and indistinct ground sculpture. *Pronotum* nearly one-sixth longer than wide, sides arcuate but not distinctly narrowed in front, basal angles completely rounded; with two discal series of four punctures, the anterior more distant, and with about five lateral punctures; ground sculpture as on head. *Elytra* with moderate punctures separated by about their diameter by slightly irregular but shining intervals. *Abdomen* very finely and moderately sparsely submuricately punctured; with very indistinct ground sculpture. *Male*, eighth sternite with a triangular emargination about twice as wide as deep but almost completely filled by a translucent membrane. *Female*, eighth sternite rounded. Length, 3 to 4 mm.

Type locality.—Paris. Of *angustatus*, "insula Ceylan et in India orientali"; of *pygmaeus*, same; of *fuscolaterus*, "les montagnes de Noura-Ellia à Ceylan"; of *exilis*, Brandenburg; of *inclinans*, Ceylon.

Types.—Presumably in the Musée National d'Histoire Naturelle, Paris. Of *angustatus*, *exilis*, and *pygmaeus*, presumably in the Deutsche Entomologische Institut, Berlin; of *fuscolaterus*, presumably in the Zoological University Museum, Moscow; of *inclinans*, probably in the British Museum.

Records.—The following are the records known to me:

Jamaica: (Gowdey, 1926), Troy (Blackwelder station 409).
Hispaniola: HAITI, Cul-de-Sac Plaine (Blackwelder station 30).
Puerto Rico: Lajas, Guanica, Sabana Grande, and Boqueron (Dozier, in U.S. N.M.), Maricao (Blackwelder station 47A).
St. Croix: (Blackwelder station 321).
Antigua: (Blackwelder stations 275B, 280B, 285B).
Guadeloupe: Basse Terre (Blackwelder station 75).
Grenada: (H. H. Smith, in British Museum and Cameron collection).
South America: FRENCH GUIANA (Fauvel, 1872).
North America: (Fauvel, 1872), MISSOURI, DISTRICT OF COLUMBIA (Horn, 1884).
Europe: (Aubé, 1850; Kraatz, 1851, 1857; Fauvel, 1872; Fairmaire and Laboulbène, 1856; Ganglbauer, 1895; Everts, 1898, 1922; Johansen, 1914; Portevin, 1929).
Asia and Orient: CHINA, JAPAN, SUMATRA, CEYLON, JAVA, NEW CALEDONIA (Fauvel, 1872; Ganglbauer, 1895; Kraatz, 1859; Motschulsky, 1859; Walker, 1859; Sharp, 1889; Fauvel, 1903; Cameron, 1932).
Africa: MADEIRA (Fauvel, 1872), MADEIRA and EAST AFRICA (Ganglbauer, 1895).

Specimens examined.—I have seen 6 examples from the West Indies in the British Museum, 1 in Dr. Cameron's collection, 5 in the United States National Museum, and 11 collected by me during 1935–37.

Remarks.—This species is very widely distributed in the temperate parts of the Northern Hemisphere. It is distinguished from other West Indian *Philonthus* by its small size and its elongate oval head. The description was drawn principally from an example from Antigua.

Xantholinus breviventer Sperk has been included in the synonymy of this species. Since it was published before *thermarum* (1835), it would have priority over that name, but since it seems likely that Sperk's species really was a *Scopaeus*, I believe it better to drop the name until it can be proved that it belongs here.

My specimens were found in dung and manure and in rotting grass.

3. PHILONTHUS VENTRALIS (Gravenhorst)

Staphylinus ventralis GRAVENHORST, 1802, p. 174. (Not Gené, 1830.)
Staphylinus anthrax GRAVENHORST, 1802, p. 176.
Staphylinus immundus GRAVENHORST, 1806, p. 66.
Staphylinus celer GRAVENHORST, 1806, p. 66.
Staphylinus rotundiceps KIRBY, MS.—STEPHENS, 1829, p. 283.
Philonthus ventralis (Gravenhorst) STEPHENS 1832, p. 232.
Philonthus picicollis STEPHENS, 1832, p. 224.
Quedius fulvipes STEPHENS, 1832, p. 229. (Not Fabricius, 1792.)
Bisnius rotundiceps STEPHENS, 1832, p. 248.
Philonthus anthrax (Gravenhorst), NERDMANN, 1837, p. 473.
Philonthus proximus WOLLASTON, 1857, p. 189. (Not Kraatz, 1859.)
Philonthus celer (Gravenhorst) KRAATZ, 1857a, p. 596. (Not Heer, 1838.)
Philonthus fortunatus WOLLASTON, 1865, p. 493.

Philonthus rotundiceps (Stephens) MULSANT and REY, 1875, p. 483.
Philonthus immundus (Gravenhorst) FLEUTIAUX and SALLÉ, 1889, p. 380.
Philonthus fulvipes (Stephens) FLEUTIAUX and SALLÉ, 1889, p. 380. (Not Fabricius, 1792.)

Description.—Head black, pronotum rufopiceous, elytra and abdomen piceocastaneous, margins of elytra sometimes narrowly testaceous. *Head* suborbicular or subquadrate with angles rounded, not narrowed behind the eyes; eyes at about their length from base; sometimes with an irregular depression in front; disk with two large punctures forming (with two supraocular) a line between the eyes, the supraocular punctures being placed a little more anteriorly, and with two large punctures posteriorly at sides of vertex; with very fine strigulose ground sculpture. *Pronotum* scarcely longer than wide, with base completely rounded, but not distinctly narrowed in front; with two discal series of four punctures, the posterior more distant, with another puncture not in line but not clearly part of the anterior marginal series, and with about four lateral punctures; ground sculpture more distinct than on head. *Elytra* with moderate punctures distinct and regular, generally separated by about their diameter; intervals smooth. *Abdomen* with very fine and moderately sparse submuricate punctures; with a vague trace of strigulose ground sculpture, and with iridescent lustre. *Male*, eighth sternite with a very feeble emarginate sinuation and a triangular area in front of it marked by the absence of punctures. *Female*, eighth sternite rounded. Length, 5 to 7 mm.

Type locality.—"Lusitania." Of *immundus*, Paris; of *celer*, Paris; of *anthrax*, "America septentr."; of *picicollis*, England; of *fulvipes*, England; of *fortunatus*, Teneriffe; of *proximus*, Madeira; of *rotundiceps*, England.

Types.—Probably in the Zoologische Museum, Berlin. Of *anthrax*, *immundus*, and *celer*, probably in the Zoologische Museum, Berlin; of *fulvipes*, in the British Museum; of *fortunatus*, in the British Museum; of *proximus*, in the British Museum; of *picicollis*, in the British Museum; of *rotundiceps*, in the British Museum.

Records.—The following are the records known to me:

Cuba: Cayamas (Casey collection, in U.S.N.M.), Soledad (Darlington, in M.C.Z.).
Jamaica: (Cameron collection; Cameron in Blackwelder collection; Gowdey, 1928), Santa Cruz (Blackwelder station 421), Milk River (Blackwelder station 415), Spanish Town (Blackwelder station 377), Moneague (Blackwelder station 375), Kingston (Blackwelder station 1C), Trinityville (Blackwelder station 428), May Pen (Blackwelder station 425C), Black River (Blackwelder station 420), Newport (Blackwelder station 412A).
Hispaniola: DOMINICAN REPUBLIC, Santiago (Blackwelder station 33A), San José de las Matas (Blackwelder station 38).

Puerto Rico: Lajas, Juana Diaz, Ensenada (Dozier, in U.S.N.M. and in Wolcott collection), Mameyes (Blackwelder station 57), Guanica (Blackwelder station 357B), San Juan (Blackwelder stations 43B, 51, 345, 353, 45), Lake Cartagena (Blackwelder station 46A), Adjuntas (Blackwelder station 48C), Humacao (Blackwelder station 54).

Culebra Island: (Busck, in U.S.N.M.).

St. Thomas: (Blackwelder stations 66, 67).

St. Croix: (Blackwelder stations 317, 325, 327, 328, 330, 331, 339, 344).

St. Kitts: (Blackwelder stations 296, 297, 300, 302, 304, 305, 306, 312).

Antigua: (Blackwelder stations 273, 275A, 275B, 280B, 281A, 284, 285B, 287, 290, 292, 294, 444K).

Montserrat: (Blackwelder stations 265B, 267B).

Guadeloupe: Basse Terre (Blackwelder stations 70, 75, 77B), Grande Terre (Blackwelder stations 86, 89, 90B).

Dominica: (Blackwelder stations 236, 240, 257A, 257B, 258).

St. Lucia: (Blackwelder stations 210, 212, 213).

Barbados: (Blackwelder stations 189, 194, 195, 198A, 199, 201A, 203).

St. Vincent: (Erichson, 1840; Fauvel, 1872; Blackwelder stations 165, 172, 185).

Grenada: (British Museum; Blackwelder stations 131, 139, 151, 161).

Tobago: (Blackwelder station 123).

Trinidad: Port of Spain (Blackwelder stations 110, 130).

South America: Cayenne (Fauvel, 1872).

North America: (Erichson, 1840; Fauvel, 1872), Iowa, Virginia, California, Texas, New York (Casey collection, in U.S.N.M.), New Mexico (Cameron collection), Michigan, Missouri, Nevada (Horn, 1884).

Europe: Germany, Sweden, France, Cyprus, England, Finland (Erichson, 1840; Kraatz, 1857; Thomson, 1860; Fauvel, 1872; Fowler, 1888).

Asia: Asia Minor, Caucasus, Transcaucasus, Siberia, India (Fauvel, 1872; Cameron, 1932).

Africa: Algeria, Madeira, Canaries, Cape Verdes (Fauvel, 1872).

Specimens examined.—I have seen 6 examples from the West Indies in the British Museum, 7 in Dr. Cameron's collection, 1 in my own collection, 4 in the collection of Dr. G. N. Wolcott, 1 in the Museum of Comparative Zoology, 11 in the United States National Museum, and 363 collected by me during 1935–37.

Remarks.—This is our most common and widespread *Philonthus*. It undoubtedly occurs on all the islands, though it has not been recorded from Martinique and some of the small islands. It is readily distinguished from most of our species by the characters given in the key, but from *discoideus* it is sometimes separated with difficulty. The latter species has the humerus and borders of elytra testaceous and has slight differences in the male characters.

My specimens were collected from dung and manure, from a pile of rotting grass, from the refuse of lime and grapefruit canneries, and flying at dusk.

4. PHILONTHUS AUDANTI, new species

Description.—Black or piceous, pronotum distinctly rufescent, abdomen iridescent. *Head* suborbicular but with posterior angles visible; eyes at about one-third their length from base; without depression in front; vertex without punctures except for one above each eye but not forming a line of four with the supraocular punctures with two of which each of the discals forms a small triangle; without distinct ground sculpture but with some luster. *Pronotum* as wide as long, base and angles completely rounded, feebly narrowed in front; with two discal series of four punctures, and with about four lateral punctures; with faint luster as on head. *Elytra* with punctures rather indistinct and indefinite, appearing as a cluster of minute punctures; surface fairly even and without ground sculpture. *Abdomen* very sparsely and moderately finely submuricately punctate; without ground sculpture but with strong iridescence. *Male*, eighth sternite with a small rounded emargination, three times as wide as deep, and with a rather wide smooth border. *Female*, unknown. Length, 5½ mm.

Type locality.—Haiti, 5 miles south of St. Marc.

Types.—Holotype, male, U.S.N.M. No. 52465, collected by me on August 15, 1935.

Records.—The following is the only record known to me:

Hispaniola: HAITI, St. Marc (Blackwelder station 26).

Specimens examined.—I have seen only the unique type.

Remarks.—This species differs from all others in the West Indies in the position of the discal pair of punctures on the head and in the elytral punctation. It is distinguished from *figulus* by its much smaller size as well as the characters mentioned in the key.

The type was found under dung.

5. PHILONTHUS DISCOIDEUS (Gravenhorst)

Staphylinus discoideus GRAVENHORST, 1802, p. 38.
Staphylinus suturalis MARSHAM, 1802. p. 509. (Not Panzer, 1794.)
Staphylinus testaceus GRAVENHORST, 1806, p. 60.
Staphylinus lepidulus KIRBY, MS.—STEPHENS, 1829, p. 278.
Quedius suturalis (Marsham) STEPHENS, 1829, p. 278. (Not Kiesenwetter, 1845; not Thomson, 1867.)
Quedius lepidulus STEPHENS, 1832, p. 223.
Staphylinus conformis BOISDUVAL and LACORDAIRE, 1835, p. 398.
Philonthus discoideus (Gravenhorst) NORDMANN, 1836, p. 97.
Philonthus suturalis (Marsham) NORDMANN, 1836, p. 91.
Philonthus ruficornis MELSHEIMER, 1846, p. 38. (Not Motschulsky, 1860; not Hochhuth, 1860; not Broun, 1880.)
Philonthus conformis (Boisduval and Lacordaire) GANGLBAUER, 1895, p. 455. (Not Sharp, 1876.)
Philonthus rufipennis GERHARDT, 1910, p. 555 (as aberration). (Not Gravenhorst, 1802; not Solier, 1849.)
Philonthus lepidulus (Stephens) BERNHAUER and SCHUBERT, 1914, p. 336. (Not LeConte, 1863.)
Philonthus testaceus (Gravenhorst) BERNHAUER and SCHUBERT, 1914, p. 336.

Philonthus discoidens CAMERON, 1933, p. 42 (misspelling).
Philonthus gerhardtianus SCHEERPELTZ, 1933, p. 1340 (new name for *rufipennis*).

Description.—Head black, pronotum rufopiceous to rufous, elytra and abdomen castaneous, sometimes picescent, elytral suture and posterior and lateral margins narrowly testaceous. *Head* subquadrate with posterior angles moderately rounded; eyes at about two-thirds their length from base; without distinct impression in front; disk with two punctures forming (with two supraocular) a row of four between the eyes, the supraoculars being placed a trifle more anteriorly, and with a pair of lateral discal punctures just back of the eyes; with minute punctulae and very fine strigulose ground sculpture. *Pronotum* as broad as long, scarcely narrowed in front, base completely rounded; with two discal series of four punctures, with another puncture not in line but not clearly part of the anterior marginal series, and with about five lateral punctures; with ground sculpture as on head. *Elytra* with moderate punctures of indefinite shape, generally not separated by their diameter; without distinct ground sculpture. *Abdomen* with fine and rather dense submuricate punctures; with indistinct transverse strigulose ground sculpture. *Male*, eighth sternite with a small triangular or rounded emargination over four times as wide as deep and preceded by a triangular smooth area. *Female*, eighth sternite rounded. Length, 5 to 6½ mm.

Type locality.—(Not recorded.) Of *suturalis*, not recorded; of *ruficornis*, Pennsylvania; of *lepidulus*, England; of *testaceus*, Sweden; of *conformis*, Paris; of *gerhardtianus* and *rufipennis*, Liegnitz.

Types.—Probably in the Zoologische Museum, Berlin. Of *ruficornis*, probably in the Museum of Comparative Zoology, Cambridge, Mass.; of *lepidulus*, in the British Museum; of *suturalis*, possibly in the British Museum; of *testaceus*, in Naturhistorisk Riksmuseum, Stockholm; of *conformis*, unknown; of *rufipennis*, presumably in collection at Hedwigsschule, Liegnitz.

Records.—The following are the records known to me:

Cuba: (Erichson, 1840; Fauvel, 1872; British Museum).
Jamaica: (Cameron collection), Spanish Town (Blackwelder station 377).
Hispaniola: HAITI, Kenskoff (Blackwelder station 23B).
Puerto Rico: San Juan (Blackwelder station 43B).
St. Croix: (Blackwelder station 344).
St. Kitts: (Blackwelder stations 297, 299, 302, 305).
Antigua: (Blackwelder stations 275B, 290).
Montserrat: (Blackwelder station 267B).
Guadeloupe: Grande Terre (Blackwelder station 89).
Grenada: (British Museum).
North America: (Fauvel, 1872), ATLANTIC STATES to NEVADA and ARIZONA (Horn, 1884), NEVADA, ARIZONA, VIRGINIA, NEW YORK, TEXAS (Casey collection, in U. S. N. M.).

Europe: GERMANY, FRANCE, SWEDEN, RUSSIA, ENGLAND, FINLAND, DENMARK, CYPRUS (Erichson, 1839, 1940; Fauvel, 1872, Mulsant and Rey, 1875; Nordmann, 1836; etc.)

Africa: BARBARIE, MADEIRA, CANARIES, CAPE VERDES (Fauvel, 1872).

Asia and Orient: SIBERIA, ASIA MINOR, INDIA, HAWAII (Nordmann, 1836; Fauvel, 1872; Cameron, 1932; Sharp, 1908).

Specimens examined.—I have seen 7 examples from the West Indies in the British Museum, 1 in Dr. Cameron's collection, and 14 collected by me during 1935–37.

Remarks.—This species is very similar to *ventralis*, but apparently it can be distinguished by the testaceous margins (especially the sutural) of the elytra. The emargination of the eighth sternite in the male is generally deeper and more angular than in *ventralis*, where it is merely a slight sinuation of the margin. I usually collected this in company with much more numerous examples of *ventralis*, and I am not certain that there are really two species involved.

My specimens were found in dung, in a pile of rotting grass, and flying at dusk.

6. PHILONTHUS FIGULUS Erichson

Philonthus figulus ERICHSON, 1840, p. 464.—SAHLBERG, 1844, p. 790.—CHEVROLAT and FAUVEL, 1863, p. 434.—SHARP, 1885, p. 415.—FAUVEL, 1891, p. 115.—BERNHAUER and SCHUBERT, 1914, p. 338.—LENG and MUTCHLER, 1914, p. 406.—PLAVILSTSCHIKOV, 1929, p. 30.—SCHEERPELTZ, 1933, p. 1342.

Philonthus amazonicus SHARP, 1876, p. 165; 1885, pp. 415, 416.—FAUVEL, 1891, p. 115.—BERNHAUER and SCHUBERT, 1914, p. 338.—LENG and MUTCHLER, 1914, p. 406.

Description.—Black. *Head* suborbicular; eyes at less than half their length from base; without impression in front; disk impunctate except for two punctures between the eyes but close to the supraocular series and not forming a line of four with any pair of the latter; without distinct ground sculpture. *Pronotum* scarcely longer than wide, posterior angles completely rounded; feebly narrowed in front; with two discal series of four punctures, the posterior more distant, and with about four lateral punctures; with minute punctulae but without ground sculpture. *Elytra* with rather fine, posteriorly-directed, sometimes submuricate punctures generally separated by about their diameter transversely; without ground scultpure. *Abdomen* with moderately fine but not dense submuricate punctures (a little denser posteriorly); iridescent but without distinct ground sculpture. *Male*, eighth sternite with triangular emargination about one-third as deep as wide and with the outer angles broadly rounded. *Female*, eighth sternite with a feeble rounded emargination not over one-fifth as deep as wide. Length, 7 to 9 mm.

Type locality.—Brazil. Of *amazonicus*, "Para, Ega, Amazons Valley," Brazil.

Types.—Presumably in the Zoologische Museum, Berlin. Of *amazonicus*, in the British Museum.

Records.—The following are the records known to me:

Cuba: (Leng and Mutchler, 1914, as *amazonicus*), Habana (Fauvel, 1863, 1891; Bierig, in Cameron collection).

Puerto Rico: Maricao (Blackwelder station 47A).

St. Vincent: (H. H. Smith, in British Museum).

Trinidad: St. Augustine (Darlington, in M.C.Z.).

South America: BRAZIL (Erichson, 1840; Sahlberg, 1844; Sharp, 1876, as *amazonicus;* 1885, as *figulus*), BRAZIL, CAYENNE (Fauvel, 1863), VENEZUELA (Fauvel, 1891; British Museum), ARGENTINA (Scheerpeltz, 1933), PERU (Plavilstschikov, 1929).

Central America: MEXICO, GUATEMALA, NICARAGUA, COSTA RICA, PANAMA (Fauvel, 1891; Sharp, 1885), GUATEMALA (Cameron collection).

Specimens examined.—I have seen from the West Indies one example in the British Museum, one in Dr. Cameron's collection, one from the Museum of Comparative Zoology, and nine collected by me during 1935–37.

Remarks.—This species may be distinguished by its black color, the interocular punctures not forming a straight row of four, and the definite though small elytral punctures. It is the only West Indian species known to me to have the eighth sternite of the female emarginate and differing from that of the male only in degree.

My specimens were found under excrement.

7. PHILONTHUS LONGICORNIS Stephens

Philonthus longicornis STEPHENS, 1832, p. 237.
Philonthus scybalarius NORDMANN, 1836, p. 94.
Philonthus fuscicornis NORDMANN, 1836, p. 96.
Philonthus feralis ERICHSON, 1840, p. 469.
Philonthus promtus ERICHSON, 1840, p. 929.
Philonthus varians FAIRMAIRE, 1849, p. 290 (not Paykull).
Philonthus algiricus MOTSCHULSKY, 1858a, p. 663 .
Philonthus pedestris WALKER, 1859, p. 51.
Philonthus asemus KRAATZ, 1859b, p. 86.
Philonthus perplexus FAIRMAIRE and GERMAIN, 1861, p. 431.
Philonthus fumosus SOLSKY, 1868, p. 134.
Philonthus promptus PETTIT, 1870, p. 65 (misspelling).
Cafius lactabilis OLLIFF, 1887, p. 501.
Philonthus lactabilis (Olliff) LEA, 1899, p. 540.
Philonthus linkei BERNHAUER, 1908c, p. 34 (as variety).
Philonthus rubromaculatus BERNHAUER, 1915c, p. 9. (Not Blanchard, 1843.)
Philonthus piceicornis GRIDELLI, 1920, pp. 18, 19.
Philonthus lactabilis EVERTS, 1922, p. 124 (misspelling).

Description.—Black, elytra piceocastaneous. *Head* orbicular; eyes at less than their length from base; not impressed in front; disk impunctate except for two large punctures forming (with two supraocular) a line between the eyes; with indistinct strigulose ground sculpture. *Pronotum* scarcely longer than wide, with base broadly rounded but angles discernible, sides arcuately but distinctly converging in front; with two discal series of four punctures, the posterior more distant, and with about five lateral punctures; ground sculpture as on head. *Elytra* with surface irregular and punctures directed posteriorly, rather dense, and often appearing submuricate; without ground sculpture. *Abdomen* with very fine and not very dense punctures; iridescent but without distinct ground sculpture. *Male*, eighth sternite with an emargination about three times as wide as deep but preceded on the segment by a triangular smooth area about as deep as wide. *Female*, eighth sternite truncate. Length, 7 to 8 mm.

Type locality.—England. Of *algiricus*, Algeria; of *fumosus*, Mexico; of *fuscicornis*, Cape of Good Hope; of *laetabilis*, "Port Lincoln, South Australia; Hobart, Tasmania"; of *perplexus*, Santiago, Chile; of *promtus*, Pennsylvania; of *scybalarius*, Berlin; of *asemus*, "India boreali"; of *feralis*, Colombia; of *pedestris*, Ceylon; of *piceicornis*, not recorded; of *linkei*, Germany; of *rubromaculatus*, southern Italy.

Types.—In British Museum. Of *promtus*, probably in the Zoologische Museum, Berlin; of *feralis*, either in the Hope Museum. Oxford, or the Zoologische Museum, Berlin; of *perplexus*, probably in either the Musée Royal d' Histoire Naturelle Belgique, Brussels, or the Museo Nacional, Santiago, Chile; of *pedestris*, probably in the British Museum; of *laetabilis*, probably in the Australian Museum, Sydney; of *piceicornis*, in the Museo Entomologicae "Pietro Rossi," Duino; of *fuscicornis*, "Mus. Reg. Berol."; of *scybalarius*, unknown; of *algiricus*, probably in the Zoological Museum, Moscow; of *asemus*, in the Deutsche Entomologische Institut, Berlin-Dahlem; of *fumosus*, in the Zoological Museum, Leningrad; of *linkei* and *rubromaculatus*, presumably in the collection of Max Bernhauer.

Records.—The following are the records known to me:

Hispaniola: HAITI, Kenskoff (Blackwelder station 23E).
Puerto Rico: Lajas (Dozier, in U.S.N.M.).
St. Kitts: (Blackwelder station 305).
Antigua: (Blackwelder station 280B).
Montserrat: (Hubbard, in U.S.N.M.).
Grenada: (British Museum).
South America: COLOMBIA (Erichson, 1840, as *feralis*), ARGENTINA, CHILE (British Museum).
Central America: MEXICO (Solsky, 1868, as *fumosus*).
North America: "Everywhere" (Horn, 1884; Erichson, 1840).
Europe: (Stephens, 1832; Fauvel, 1872; Ganglbauer, 1895; Nordmann, 1836; Thomson, 1860; Reitter, 1909; Johansen, 1914).
Africa: MADEIRAS, CANARIES, AZORES, CAPE VERDES, ASCENSION, CAPE OF GOOD HOPE, MADAGASCAR (Fairmaire, 1849; Wollaston, 1871; Fauvel, 1872).
Asia and Orient: SIBERIA, JAPAN, CEYLON, TAHITI, AUSTRALIA, NEW CALEDONIA, TASMANIA, HONG KONG, SUMATRA (Fairmaire, 1849; Fauvel, 1872; Olliff, 1887; Cameron, 1932; British Museum).

Specimens examined.—I have seen five examples from the West Indies in the British Museum, two in the United States National Museum, and three collected by me during 1935–37.

Remarks.—This species is widespread in both hemispheres but is generally not common. It is one of the few all black species in our region and can be distinguished by the combination of characters given in the key.

My specimens were all taken from dung, but the Hubbard example from Montserrat was taken "in refuse of arrowroot."

8. PHILONTHUS VARIANS (Paykull)

Staphylinus varians Paykull, 1789, p. 45.
Staphylinus nitens Gravenhorst, 1802, p. 26. (Not Schrank, 1781.)
Staphylinus opacus Gravenhorst, 1802, p. 26. (Not Block, 1799; not Roth, 1851.)
Staphylinus bipustulatus Gravenhorst, 1802, p. 37. (Not Linnaeus, 1761.)
Staphylinus aterrimus Marsham, 1802, p. 513. (Not Gravenhorst, 1802.)
Staphylinus bimaculatus Marsham, 1802, p. 525. (Not Schrank; not Gravenhorst, 1802.)
Staphylinus nigrans Dejean, 1821, p. 22.—Dahl, 1823, p. 16.
Staphylinus unicolor Kirby, MS.—Stephens, 1829, p. 278 (nomen nudum). (Not Herbst, 1784.)
Philonthus varians (Paykull) Stephens, 1829, p. 280.
Philonthus opacus (Gravenhorst) Stephens, 1829, p. 281. (Not LeConte, 1863.)
Philonthus aterrimus (Marsham) Stephens, 1829, p. 281.
Philonthus bipustulatus (Fabricius) Stephens, 1829, p. 281.
Staphylinus intaminatus Kirby, MS.—Stephens, 1829, p. 281.
Staphylinus lituratus (Samouelle) Stephens, 1829, p. 281 (nomen nudum).
Staphylinus punctiventris Kirby, MS.—Stephens, 1829, p. 281.
Quedius unicolor Stephens, 1832, p. 224. (Not Kiesenwetter, 1847.)
Philonthus punctiventris Stephens, 1832, p. 235. (Not Kraatz, 1857.)
Philonthus intaminatus Stephens, 1832, p. 235.
Philonthus nitens (Gravenhorst) Stephens, 1832, p. 236.
Philonthus lituratus Stephens, 1832, p. 238.
Staphylinus nigricans Zetterstedt, 1840, p. 65.
Philonthus costatus Baudi, 1848, p. 29.
Quedius incompletus Hochhuth, 1849, p. 153.
Philonthus alpigradus Mulsant and Rey, 1875, p. 481.
Philonthus scutatus Eppelsheim, 1895, p. 127. (Not Erichson, 1840.)
Philonthus unicolor (Stephens) Reitter, 1909, p. 130. (Not Kiesenwetter, 1847.)
Philonthus incompletus (Hochhuth) Bernhauer, 1915e, p. 9. (Not Roubal, 1911.)
Philonthus bimaculatus (Marsham) Bernhauer and Schubert, 1914, p. 359. (Not Gravenhorst, 1802.)
Philonthus piceicoxis Gridelli, 1920, pp. 18, 19. (Not Eppelsheim, 1895.)
Philonthus proteus Everts, 1922, p. 124.
Philonthus fuscicoxis Scheerpeltz, 1933, p. 1366 (as aberration).

Description.—Black, elytra with indefinite reddish subsutural spot in apical two-thirds. *Head* scarcely wider than long, subquadrate; eyes at about their length from base; not impressed in front; disk impunctate except for two large punctures forming (with two supraocular) a line between the eyes; with rather indefinite strigulose ground sculpture. *Pronotum* as wide as long, base rounded with angles scarcely discernible, distinctly narrowed in front; with two discal series of four punctures, the posterior more distant, and with about four lateral punctures; ground sculpture as on head. *Elytra* without distinct punctures but with posteriorly directed setae arising from very small submuricate punctures on surface irregularities. *Abdomen* sparsely and moderately finely submuricately punctured; with scarcely a trace of ground sculpture. *Male*, eighth sternite with a large triangular emargination a little wider than deep and preceded by a smooth triangular depression. *Female*, eighth sternite rounded. Length, 7 mm.

Type locality.—Sweden. Of *alpigradus*, Auvergne, France; of *nitens*, Brunswick, Germany; of *punctiventris*, Suffolk, England; of *unicolor*, England; of *aterrimus* (Great Britain); of *piceicoxis*, not recorded; of *intaminatus* and *lituratus*, England; of *opacus*, Brunswick, Germany; of *fuscicoxis*, north Italy; of *incompletus*, Tiflis, Caucasus; of *costatus*, Sardinia; of *scutatus*, Gabon, West Africa; of *bipustulatus*, Brunswick, Germany; of *bimaculatus*, England.

Types.—In Naturhistisk Riksmuseum, Stockholm. Of *piceicoxis*, in Museo Entomologicae "Pietro Rossi," Duino; of *intaminatus*, *lituratus*, *unicolor*, and *punctiventris*, in British Museum, London; of *aterrimus*, probably in the British Museum; of *nitens* and *bipustulatus*, in Zoological University Museum, Breslau; of *opacus*, probably in Zoologische Museum, Berlin; of *alpigradus*, possibly in Musée d'Histoire Naturelle, Lyon; of *incompletus*, presumably in Zoologische Kabinett dem Polytechnic Institut, Kiev; of *fuscicoxis*, probably in collection of Otto Scheerpeltz; of *costatus*, in Zoological University Museum, Turin; of *scutatus*, in Naturhistorische Museum, Wien; of *bimaculatus*, unknown.

Records.—The following are the records known to me:

Cuba: (Erichson, 1840).
St. John: (Erichson, 1840).
St. Vincent: (Erichson, 1840).
North America: NORTH ATLANTIC STATES to WASHINGTON and CALIFORNIA (Horn, 1884).
Europe: CYPRUS, SYRIA, ASIA MINOR, CAUCASUS, ENGLAND (Erichson, 1840; Kraatz, 1857; Fauvel, 1872; Mulsant and Rey, 1875; Ganglbauer, 1895; Stephens, 1832).
Africa: CAPE OF GOOD HOPE, BARBARIE, ABYSSINIA, TENERIFFE, CAFFRARIA (Erichson, 1840; Fauvel, 1872; Boheman, 1848).
Asia: SIBERIA, JAPAN, BURMA (Fauvel, 1872; Cameron, 1932).

Specimens examined.—I have seen no examples from the West Indies. The description was drawn from a North American example in the Casey collection.

Remarks.—This species is distinguished from *longicornis* by the marking of the elytra and the sparse punctures of the abdomen. It also differs in the male characters.

I find no record of its habits.

9. PHILONTHUS FLAVOLIMBATUS Erichson

Philonthus flavolimbatus Erichson, 1840, pp. 471, 929.—LeConte, 1866, p. 348.—Horn, 1884, pp. 190, 191, 192, 247.—Sharp, 1885, p. 416.—Cockerell, 1898, p. 143.—Griffith, 1900, p. 566.—Fall, 1901, pp. 14, 69.—Knaus, 1905, pp. 349; 1906, p. 330.—Fall and Cockerell, 1907, p. 166.—Leng and Mutchler, 1914, p. 401.—Bernhauer and Schubert, 1914, p. 338.—Notman, 1920, p. 706.—Tottenham, 1939, p. 233.

Philonthus apicipennis Lynch, 1884, p. 155.—Fauvel, 1887, p. 232 (as synonym).—Villada, 1901, p. 30.—Bernhauer and Schubert, 1914 p. 338.—Tottenham, 1939, p. 233. (Not Cameron, 1932.)

Description.—Head black, pronotum rufopiceous, elytra piceous with apical border testaceous (much more widely near suture), abdomen piceous with posterior margins rufous. *Head* suborbicular, posterior angles entirely rounded; eyes at about their length from base; disk impunctate except for two large punctures forming (with two supraocular) a row between the eyes; with very fine punctulae and very fine strigulose ground sculpture. *Pronotum* one twenty-fourth longer than wide, distinctly narrowed in front but with sides feebly arcuate; base broadly rounded but posterior angles traceable; with two discal series of four punctures, fairly evenly spaced, and with about four lateral punctures; ground sculpture more distinct than on head. *Elytra* with indefinite posteriorly-directed submuricate punctures, not very dense; without ground sculpture. *Male*, eighth sternite with a very feeble triangular emargination at least four times as wide as deep, posterior angles rounded. *Female*, eighth sternite truncate. Length, 4½ to 5½ mm.

Type locality.—Colombia. Of *apicipennis*, "America meridionali et boreali."

Types.—Either in the Hope Museum, Oxford, or the Zoologische Museum, Berlin. Of *apicipennis*, in the Museo Argentina Ciencias Natural Bernard Rivadavia, Buenos Aires.

Records.—The following are the records known to me:

Martinique: (Bernhauer and Schubert, 1914).

Grenadines: Carriacou (Blackwelder stations 143B, 144B).

South America: Colombia (Erichson, 1840); Brazil (Sharp, 1885), Argentina (Lynch, 1884), New Grenada, Brazil, Argentina (Bernhauer and Schubert, 1914).

Central America: Mexico, Guatemala, Nicaragua, Panama (Sharp, 1885).

North America: Carolina (Erichson, 1840), Gulf States and Arizona (Horn, 1884), California, Florida (Leng, 1920), Texas, Arizona (U.S.N.M.).

Specimens examined.—I have seen only six examples from the West Indies, collected by me in January 1936. Numerous examples from Southern United States are in the United States National Museum.

Remarks.—This species is apparently widely distributed in tropical and subtropical America. Its present known distribution in the West Indies probably indicates that it has been introduced there recently. It is distinguished from other West Indian species by the testaceous border of the elytra, which is very similar to that found in some species of *Baryodma.*

My specimens were all found in cattle dung.

10. PHILONTHUS CARIBAEUS Bierig

Philontus (s.str.) *caribaeus* Bierig, 1940, p. 141, fig. 19, 1.

Original description.—"Longitud como 8 mm.; cabeza 0,9 mm. de ancho, protórax 0,9 por 1.3, élitros 1.4 por 1.5 mm., de ancho por largo, máxima anchura abdominal (3.er segmento) 1.4 mm. Lustroso. De un negro de pez, repliegues laterales y márgenes posterio-tergitales del abdomen obscuro-castaños, élitros aéneos, bucales, escapo antenal y base de los artículos 2 y 3 de un testáceo subido, miembros testáceos, tarsos y extremo antenal más pálidos aún. Cabeza allanada en el plano epicraneal, recta a la base y los temporales algo divergentes, de ancho redondeado en los ángulos occipitales, los ojos de poca convexidad; de 2 puntos gemelos superoculares el exterior el más grosero, al borde occipital más numerosos puntos que a la gena posterior. Antenas 2.4 mm., engrosadas de modo sucesivo y doblando, finalmente, casi 2 veces el grosor del escapo; éste poco más largo que el artículo 3, 2.° como de ⅕ más corto y de la longitud del 4.°, siguientes decreciendo paulatinamente, últimos algo aplastados y más cónicos, 10° tan ancho como largo, terminal inflado, oblicuo-truncado en el ápice. Tórax paralelo, costados subsinuados en la mayor mitad antical, márgenes proximal y distal arqueadas, ángulos redondeados, los anteriores desaparecidos por completo (visto desde arriba); disco achagrinado, microscópicamente, en sentido transverso; puntos bastante obsoletos, los laterales en número de 4 y en figura de rombo. Elitros de húmeros convexos, de lados subrecto-divergentes, la sutura ligeramente abultada dentro de una hondonada leve, integral; punctuación mediocremente fina, neta, oblicuo-impresa desde atrás, transversalmente subcontigua; pubescencia de suma sutileza, de color grisáceo. Escudete rugoso-coriáceo y con confusos poros de pelitos acostados, negros. Abdomen cónico desde el tercer segmento, los puntos tergitales distintamente más groseros que los elitrales, algo menos apretados, oblongos, pilíferos, esparciéndose en las áreas apicales. Estiletes fuscos, sólo sutilmente pubescentes, espinas tibiales débiles, obscuras.

"En el ♂, sólo está cortamente recto-recortado el ápice del 6.° esternito abdominal, mientras en la hembra se nota una punta obtusa. Los protarsos están algo dilatados hacia la base."

Type locality.—Cuba.

Types.—In the collection of Alexander Bierig.

Records.—The following are the records known to me:

Cuba: Province of Habana (Bierig, 1940), province of Pinar del Rio (Bierig, 1940).

Specimens examined.—I have seen no examples of this species.

Remarks.—"Hace años, este coleóptero fué determinado por Rambousek como *Paederomimus* sp., y, en efecto, cierta semejanza es innegable. Pero un examen concienzudo de los caracteres primordiales de este género y de *Philonthus* aclaró que ha de añadirse al último; sin embargo bajo un subgénero aun a crear. Es de talle esbelto y muy grácil, a la armadura tibial escasea y remeda la del ruso *brunicollis* Hochh., en el cual, además, veo un parentesco estrecho, general. Se señala luego por el tórax subcilíndrico, un ligero irisar superficial, excepto los élitros aéneos, y la palidez del extremo antenal. En concepto erichsoniano entra en el grupo de las especies de 6 puntos pronotales."

See Remarks under genus *Philonthus.*

"Se encuentra durante todo el año en la hojarasca, en los Noviembres principalmente (Bierig)."

11. PHILONTHUS SILVATICUS Cameron

Philonthus silvaticus CAMERON, 1922, p. 119.—SCHEERPELTZ, 1933, p. 1361.

Description.—Black, elytra bronze-green. *Head* broader in front, sides gradually convergent behind the eyes, posterior angles broadly rounded; eyes at less than their length from base; with a pair of widely separated discal punctures between the eyes; without strong ground sculpture. *Pronotum* nearly cylindrical, scarcely narrowed behind; with two discal series of five punctures, and with about five lateral punctures. *Elytra* moderately finely and moderately closely punctate. *Abdomen* with the bases of the three basal tergites closely and moderately coarsely punctate, the rest much more sparingly and more finely punctate. *Male*, eighth sternite with a small rounded emargination. *Female*, (eighth sternite rounded). Length, 6¾ to 7 mm. (From Cameron.)

Type locality.—Jamaica.

Types.—In Dr. Cameron's collection.

Records.—The following is the only record known to me:

Jamaica: (Cameron, 1922).

Specimens examined.—I have seen nine examples of this species, including the type, in Dr. Cameron's collection.

Remarks.—This species is quite similar to what I recognize as *havaniensis* but is apparently distinguishable by the shape of the pronotum. It is distinguished from *waterhousei* and most other species by the greenish color of the elytra. Dr. Cameron described this species as "very black." Examples of *waterhousei* that he describes as "black" are generally slightly castaneous or rufescent. It is assumed that this species is actually black and not picescent.

I find no record of its habits.

12. PHILONTHUS WATERHOUSEI Cameron

Philonthus waterhousei Cameron, 1922, p. 120.—Scheerpeltz, 1933, p. 1369.

Description.—Piceous, generally feebly rufescent. *Head* transverse, somewhat narrowed behind eyes, the latter at distinctly more than their length from base; basal angles rounded; with a slight depression in front; disk with two punctures forming (with two supraocular) a line of four between the eyes, and with scattered punctures at sides and base leaving only the center of vertex impunctate; without distinct ground sculpture. *Pronotum* about one-third longer than wide, widest at anterior third, feebly emarginately narrowed to basal third, with basal angles broadly rounded; with two discal series of five punctures, fairly evenly spaced, and with about seven lateral punctures; with vague ground sculpture. *Elytra* with moderate punctures separated by about their diameter; the surface even and without ground sculpture. *Abdomen* rather irregularly but finely and submuricately punctured; with traces of ground sculpture. *Male*, eighth sternite with posterior margin sinuate but not distinctly emarginate, bordered at center with a narrow smooth rim. *Female*, eighth sternite rounded. Length, 4 to 5 mm.

Type locality.—St. Vincent, Leeward side.

Types.—In the British Museum; one "cotype" in Dr. Cameron's collection, six "cotypes" in the United States National Museum (No. 50878).

Records.—The following are the records known to me:

St. Vincent: (Cameron, 1922; British Museum; Cameron collection; U.S.N.M.).
Grenada: (British Museum; Cameron collection; Cameron, 1922; U.S.N.M.).

Specimens examined.—I have seen 12 examples in the British Museum, 7 in Dr. Cameron's collection, and 6 in the United States National Museum (each including the types mentioned above).

Remarks.—This species is distinguished by the characters given in the key and by the very feeble characters of the male. The description is drawn from a St. Vincent example in the United States National Museum.

I find no record of its habits.

13. PHILONTHUS TRINITATIS, new species

Description.—Head piceous, pronotum piceorufous, elytra rufous but paler at base, abdomen rufous with fourth and fifth visible segments piceous. *Head* (including eyes) one-sixth wider than long, suborbicular, hind angles scarcely traceable; eyes at a little less than their length from base; with a strong median longitudinal depression in anterior half; disk with two punctures forming (with two supraocular) a nearly straight row of four between the eyes, and with scattered very coarse punctures at sides and base; without ground sculpture. *Pronotum* one-third longer than wide, widest near front angles, feebly emarginately narrowed to basal angles, which are moderately rounded, base truncate; with discal series of five or six punctures (and another anterior pair which is not truly marginal) very deep and coarse, nearly umbilicate, and with five or six lateral punctures; without ground sculpture. *Elytra* with rather coarse punctures separated by less than their diameter; the surface somewhat rugose but without ground sculpture. *Abdomen* irregularly but finely and submuricately punctate; without ground sculpture. *Male*, unknown. *Female*, eighth sternite rounded. Length, 6 mm.

Type locality.—Trinidad, St. Augustine.

Types.—Holotype in the Museum of Comparative Zoology.

Records.—The following is the only record known to me:

Trinidad: St. Augustine (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the holotype.

Remarks.—This species is not very similar to *P. waterhousei.* The coloring, the strength of the pronotal punctures, the shape of the head and pronotum, the coarseness of the elytral punctures, and the complete lack of any trace of ground sculpture are among the differences.

I would hesitate to describe a single *Philonthus* as new, especially from Trinidad, if it were not so unusual in appearance and structure. None of the South or Central American species known to me are at all similar. The general facies is that of a *Belonuchus*, but the femora are without spines (except for one row on the anterior) and the gular sutures are united only behind the middle.

I have received no record of its habits.

14. PHILONTHUS HAVANIENSIS (Laporte)

Staphylinus havaniensis Laporte, 1834, p. 116.

Philonthus havaniensis (Laporte) Laporte, 1834, p. 116.—Fauvel, 1891, p. 115.—Bernhauer and Schubert, 1914, p. 340.—Leng and Mutchler, 1914, p. 406.—Wolcott, 1924, p. 78; 1936, p. 197.

Philonthus trepidus Erichson, 1840, p. 489.—Fauvel, 1891, p. 115 (as synonym of *havaniensis*).—Bernhauer and Schubert, 1914, p. 340.

Philonthus obscurus FAUVEL, 1863, p. 434; 1891, p. 115 (as synonym of *havaniensis*).—BERNHAUER and SCHUBERT, 1914, p. 340.—LENG and MUTCHLER, 1914, p. 406. (Not Gravenhorst, 1802.)

Philonthus cubensis BIERIG, MS.

Description.—Black (frequently more or less rufescent, especially the pronotum) with brownish pubescence on elytra and abdomen. *Head* subquadrate, very feebly narrowed behind the eyes to rounded basal angles; eyes at almost their length from base; sometimes flattened or impressed in front; with a pair of punctures forming (with two supraocular) a line of four punctures between the eyes; impunctate area of disk smaller than usual; with very fine strigulose ground sculpture, and sometimes greenish lustre. *Pronotum* one-fourth longer than wide, sides parallel with basal angles broadly rounded; with two discal series of six punctures, the anterior less distinctly part of the series but distinctly not marginal, and with about four lateral punctures; with ground sculpture as on head, lustre more coppery when present. *Elytra* with surface sometimes subrugose so that punctures are not readily visible; they are directed posteriorly and more or less submuricate; shining or with some trace of tuberculate ground sculpture. *Abdomen* with moderately fine and dense punctures either strongly excavated behind or submuricate; with more or less distinct ground sculpture. *Male*, eighth sternite with a rounded or triangular emargination about one-fifth to one-half as deep as wide, with a narrow smooth border, frequently the border emarginately depressed. *Female*, eighth sternite rounded or truncate. Length, 4 to 6½ mm.

Type locality.—Cuba. Of *trepidus*, "Americae ins. St. Johannis et Puerto Rico"; of *obscurus*, Cuba.

Types.—Probably in the Muséum National d'Histoire Naturelle, Paris. Of *trepidus*, either in the Hope Museum, Oxford, or the Zoologische Museum, Berlin; of *obscurus*, presumably in the collection of Blanche Rancin, Caën, France.

Records.—The following are the records known to me:

Cuba: (Laporte, 1834; Fauvel, 1863; Leng and Mutchler, 1914), Cayamas (Schwarz, in U.S.N.M.), Matanzas Province (Bierig, in Blackwelder collection), Soledad (Darlington, in M.C.Z. and U.S.N.M.).

Jamaica: Spanish Town (Blackwelder station 377), Black River (Blackwelder station 416), Kingston (Blackwelder station 379).

Hispaniola: HAITI, Bayeux (Hoffman, in U.S.N.M.), Port-au-Prince (Audant collection).

Puerto Rico: (Erichson, 1840, as *trepidus;* Leng and Mutchler, 1914; Wolcott, 1924, 1936), Maricao (Blackwelder station 47A), Guanica (Blackwelder station 356), Mayagüez (Blackwelder station 50B).

St. John: (Erichson, 1840, as *trepidus;* Leng and Mutchler, 1914).

St. Croix: (Blackwelder station 341; H. A. Beatty, in U.S.N.M.).

Antigua: (Blackwelder station 287; H. E. Box, as Blackwelder stations 444M, 444O).

Specimens examined.—I have seen 14 examples in the United States National Museum, 4 from the Museum of Comparative Zoology, 1 in the collection of the Service Technique in Haiti, 1 in my own collection, 10 collected by Dr. H. E. Box in 1937, 4 collected by H. A. Beatty in 1938, and 18 collected by me during 1935-37.

Remarks.—This species is very variable in the details of sculpture and punctation as well as in the shape and extent of the male characters. It may be distinguished by the number of punctures in the pronotal series and the shape of the pronotum.

My specimens were collected from dung, the muddy banks of ponds, the rotting "fruit" of an imported palm, and flying at dusk. The examples from Dr. Box were taken "among decaying forest debris in *Inga laurina* forest in mesophytic (volcanic) district."

LXIV. Genus BELONUCHUS Nordmann

Belonuchus NORDMANN, 1836, p. 129.
Trapeziderus MOTSCHULSKY, 1859, p. 77.
Musicoderus SHARP, 1885, p. 455.

Genotypes.—*Staphylinus haemorrhoidalis* Fabricius = *Belonuchus haemorrhoidalis* (Fabricius) (monobasic). (Misspelled *haemoroidalis* by Nordmann.) Of *Trapeziderus*, *T. bicolor* Motschulsky monobasic); of *Musicoderus*, *M. cephalotes* Sharp (designated here).

Diagnosis.—Head without dense umbilicate punctures, not margined beneath the eyes; antennae widely separated at front of head, outer segments pubescent from fourth segment; labrum bilobed; palpi elongate and slender, fourth segment of maxillary longer than third, labial similar to maxillary; gular sutures united from before middle, at least in the males; lateral margin of pronotum double, the lines united near coxal articulation; anterior coxal cavities entirely open behind; front coxae large, exserted; posterior coxae contiguous, "triangular"; first and second abdominal sternites absent; intersegmental membranes of abdomen with a pattern of irregular rounded sclerotized areas arranged in longitudinal rows; front femora generally finely, and posterior generally coarsely spinose.

Remarks.—This genus has always been separated from *Philonthus* in an unsatisfactory manner. The spinosity of the posterior femora is more constant than that of the anterior femora but yet does not hold throughout. The gular sutures have here been found to be fairly satisfactory for this purpose, since in *Philonthus* (at least in the West Indies) these sutures are either separate throughout or united well behind the middle.

In counting the punctures in the discal pronotal series I have not tried to follow a set rule but have included any marginal puncture that is in the proper position to fall within the series. If the marginal puncture is clearly out of line it is not counted. This method was taken into consideration in the key in the case of the species not represented by specimens at hand. All references to this character are corrected to this method.

Musicoderus apparently cannot be retained even as a subgenus, at least as far as our one species is concerned. Dr. Cameron expressed to me his opinion that it is a synonym of *Belonuchus* and I concur in this opinion.

The record of *Musicoderus cephalotes* Sharp from Jamaica by Gowdey, 1926, is probably a misidentification. Until the specimens can be reexamined, it must be regarded as a doubtful record.

Of West Indian specimens I have examined 256, which I assign to 16 species of which 7 are believed to be new.

KEY TO WEST INDIAN SPECIES OF BELONUCHUS

1.	Elytra bright rufous or testaceous with head and pronotum black	2
	Elytra black, bluish, or body rufescent throughout	4
2.	Abdomen bicolored	3
	Abdomen unicolorous	11. **mundus**
3.	Abdomen rufotestaceous, apex black	14. **rufipennis**
	Abdomen black, apex rufotestaceous	12. **satyrus**
4.	Apex of abdomen abruptly paler	5
	Abdomen unicolorous	10
5.	Dorsal series of pronotum with five punctures	6
	Dorsal series of pronotum with less than five punctures	9
6.	Apical segment alone paler	5. **amplus**
	Two or more apical segments paler	7
7.	Head and pronotum bluish	6. **coelestinus**
	Head and pronotum black or piceous	8
8.	Length 7 mm. or less	9. **bugnioni**
	Length about 10 mm	8. **agilis**
9.	Pronotum with single pair of dorsal punctures	7. **cognatus**
	Pronotum with dorsal series of three punctures	[18]
10.	Front of head with a longitudinal depression	12
	Front of head without longitudinal depression	11
11.	Front of head with broad concavity	3. **trinitatis**
	Front of head entirely without depressions	10. **danforthi**
12.	Dorsal series of pronotum with four punctures	2. **oakleyi**
	Dorsal series of pronotum with five punctures	13
13.	Abdomen (and sometimes other parts) rufous	14
	Abdomen black or piceocastaneous	15
14.	Pronotum distinctly narrowed posteriorly	16. **antiguae**
	Pronotum not distinctly narrowed posteriorly	13. **dominicus**
15.	Punctures of elytra generally separated by about their diameter or more	16
	Punctures of elytra separated by much less than their diameter.	1. **hispaniolus**

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[18] One specimen in the present collection runs out at this point in the key. It was taken by the Plant Quarantine Service at New York from boats that had come last from Cuba. Inasmuch as there is considerable chance of error in assuming that Cuba is the actual home of the species, it is not named or described here.

16. Much depressed; elytral intervals with indistinct ground sculpture; length 6 mm ---------- 15. **cacao**
Not depressed; elytral intervals smooth, shining; length 6 to 9 mm. 4. **gagates**

1. BELONUCHUS HISPANIOLUS, new species

Description.—Piceous throughout. *Head* narrowed behind the eyes with sides completely rounded into base; eyes at barely their length from base; in front with a median longitudinal impression nearly one-half as long as head; with large and impressed punctures sparsely scattered at sides; with fine strigulose ground sculpture. *Pronotum* about one-eighth longer than wide, widest near front, feebly emarginately narrowed posteriorly to rounded basal angles; discal series with five punctures, and with about five lateral punctures; ground sculpture as on head. *Elytra* with punctures rather small and dense, generally separated by distinctly less than their diameter, the bottom of each appearing granulate; surface even, without ground sculpture. *Abdomen* with very sparse and fine, often submuricate punctures; without distinct ground sculpture but with iridescent lustre. *Male*, unknown. *Female*, eighth sternite rounded. Length, 7 mm.

Type locality.—Dominican Republic, San Francisco Mountains.

Types.—Holotype and one paratype, females, U.S.N.M. No. 52463, collected on "6.9.05" by August Busck.

Records.—The following is the only record to me:

Hispaniola: Dominican Republic (Busck, in U.S.N.M.).

Specimens examined.—I have seen only the two types.

Remarks.—This species is distinguished by its dense granulate elytral punctures and by its uniform black color.

I find no record of its habits.

2. BELONUCHUS OAKLEYI, new species

Description.—Piceous, head, pronotum, and abdomen with iridescent luster. *Head* with sides evenly rounded from eyes to neck; eyes at less than their length from base; in front with a longitudinal impression nearly one-half as long as head; with a few moderately large scattered punctures; with fine strigulose ground sculpture. *Pronotum* one-sixth longer than wide, widest at anterior angles, feebly and sinuately narrowed posteriorly, basal angles broadly rounded; discal series of four punctures, with about six lateral punctures; with ground sculpture as on head. *Elytra* with moderate punctures generally separated by about their diameter; intervals flat but surface somewhat ridged and finely coriaceous. *Abdomen* with moderately sparse and fine submuricate or excavated punctures; with only a vague trace of ground sculpture. *Male*, unknown. *Female*, eighth sternite rounded. Length, 6 mm.

Type locality.—Puerto Rico, Mayagüez.

Types.—Holotype, U. S. N. M. No. 52460, collected by me on October 5, 1935.

Records.—The following is the only record known to me:

Puerto Rico: Mayagüez (Blackwelder station 50B).

Specimens examined.—I have seen only the unique type.

Remarks.—This species is distinguished by having only four punctures in the pronotal series. It is also an unusually small and slender species, with a violet luster on head and pronotum.

The type was found in a mass of rotting "fruit" at the base of an imported palmlike tree.

3. BELONUCHUS TRINITATIS, new species

Description.—Black, pronotum and abdomen more or less piceous. *Head* quadrate, sides arcuate but not distinctly narrowed behind eyes, basal angles rounded but marked by ridges; eyes separated from base by about their length; with a concavity in front but without longitudinal impressed line; punctures large, impressed, umbilicate, but very sparse; with very fine strigulose ground sculpture. *Pronotum* scarcely longer than wide, widest at anterior angles, sides straight and feebly narrowed to base which is strongly rounded; dorsal series of five punctures, and with about five lateral punctures; ground sculpture as on head. *Elytra* with moderately coarse punctures generally separated by more than their diameter by somewhat uneven intervals; surface indistinctly coriaceous. *Abdomen* sparsely and rather finely submuricately punctate; with only a trace of transverse ground sculpture. *Male*, eighth sternite flattened or concave and with a rounded emargination about three times as wide as deep. *Female*, with eighth sternite truncate. Length, 8 to 9 mm.

Type locality.—Trinidad, Department of Agriculture Stock Farm at St. Joseph, 6 miles east of Port of Spain.

Types.—Holotype, male, and four paratypes, U.S.N.M. No. 52458, collected by me on January 5, 1936.

Records.—The following is the only record known to me:

Trinidad: Port of Spain (Blackwelder station 130).

Specimens examined.—I have seen only the five types.

Remarks.—This species is distinguishable by the lack of median longitudinal impression at the front of the head. The shape of the concavity differs between the sexes. The females have a smaller depression, it being more nearly longitudinal but still distinguishable from the linear impression of the other species.

The types were found in cattle dung.

4. BELONUCHUS GAGATES Erichson

Belonuchus gagates Erichson, 1840, p. 424.—Duval, 1857, p. 38.—Chevrolat and Fauvel, 1863, p. 433.—Bernhauer and Schubert, 1914, p. 370.—Leng and Mutchler, 1914, p. 406; 1917, p. 199.—Wolcott, 1924, p. 78.—Gowdey, 1926, p. 12.—Wolcott, 1936, p. 197.

Belonuchus minax Erichson, 1840, p. 424.—Bernhauer and Schubert, 1914, p. 371.—Leng and Mutchler, 1914, p. 406.

Musicoderus nigrocaeruleus Cameron, 1913a, p. 175.

Musicoderus nigrocoeruleus Leng and Mutchler, 1917, p. 198 (misspelling).

Belonuchus gowdeyi Bernhauer, MS.—Gowdey, 1928, p. 2.—Bernhauer, 1935, p. 91.

Belonuchus nigrocaeruleus (Cameron) Scheerpeltz, 1933, p. 1379.

Description.—Black to rufopiceous, often with metallic lustre except on elytra. *Head* slightly narrowed behind the eyes, and sides rounded into base; eyes at about their length from base; in front with a longitudinal impression of varying length; punctures large and umbilicate but very sparse; with fine strigulose ground sculpture. *Pronotum* not or scarcely longer than wide, widest in front with front angles rounded, sides nearly straight, moderately narrowed posteriorly to completely rounded base; dorsal series of five punctures, and with five or six lateral punctures; with ground sculpture as on head. *Elytra* with punctures separated by once or twice their diameter by flat even intervals; not distinctly coriaceous. *Abdomen* very sparsely and moderately finely submuricately or excavately punctate; without distinct ground sculpture but generally somewhat iridescent. *Male*, eighth sternite with a rounded emargination about three times as wide as deep. *Female*, eighth sternite rounded. Length, 6½ to 9 mm.

Type locality.—"Puerto Rico . . ., Cuba . . ." Of *gowdeyi* Cinchona, Jamaica; of *minax*, St. Thomas and St. John; of *nigrocaeruleus*, Newcastle district, Jamaica.

Types.—Either in the Hope Museum, Oxford, or the Zoologische Museum, Berlin. Of *gowdeyi*, in the British Museum; of *minax*, with *gagates*; of *nigrocaeruleus*, in Dr. Cameron's collection.

Records.—The following are the records known to me:

Bahamas Island: Nassau (Busck, in U.S.N.M.).

Cuba: (Erichson, 1840; DuVal, 1857; Chevrolat and Fauvel, 1863; Leng and Mutchler, 1914; British Museum), Marianao (Rambousek, in Cameron collection), Habana (Rambousek, in Cameron collection; Baker, in Casey collection, U.S.N.M.), Cayamas (Schwarz, in U.S.N.M.), Santiago de las Vegas (Dimmock, in U.S.N.M.), Soledad (Darlington, in M.C.Z. and U.S.N.M.).

Jamaica: (Department of Agriculture collection, Jamaica; Gowdey, 1926, 1928; Leng and Mutchler, 1917, as *gagates* and *nigrocaeruleus;* Bernhauer, 1935, as *gowdeyi;* British Museum; Schaus and Hubbard, in U.S.N.M.), Cinchona (British Museum, as *gowdeyi*), Newcastle (Cameron, 1913, as *nigrocaeruleus*), Gordon Town (Blackwelder station 383).

Hispaniola: (Leng and Mutchler, 1914).

Puerto Rico: (Erichson, 1840; DuVal, 1857; Leng and Mutchler, 1914; Wolcott, 1924, 1936), Bayamon (Busck, in U.S.N.M.), Juana Diaz (Dozier, in U.S.N.M.), Ensenada (Dozier, in U.S.N.M.), Maricao (Morrison, in U.S.N.M.; Blackwelder station 47A), Mayagüez (Blackwelder station 50B; Dozier, in U.S.N.M.), San Juan (Blackwelder station 51), El Yunque (Blackwelder station 351A), Ponce (Wolcott, 1924).

St. Thomas: (Erichson, 1840; Leng and Mutcher, 1914; as *minax*).

St. John: (Erichson, 1840; Leng and Mutchler, 1914; as *minax*).

Montserrat: (Hubbard, in U.S.N.M.).

Specimens examined.—I have seen 11 examples in the British Museum (including the type of *gowdeyi*), 14 in the collection of Dr. Cameron (including the type of *nigrocaeruleus*), 2 from the Museum of Comparative Zoology, 66 in the United States National Museum (including 4 in the Casey collection), and 12 collected by me in 1935–37.

Remarks.—This species is rather variable in several characters. It seems to be our only widespread all-black species of this genus, but it has been found in numbers only under carrion.

Examination of the types of *nigrocaeruleus* and *gowdeyi* has shown them to be the same as *gagates*. This species has not been definitely recorded from new specimens since its description.

This species has been collected from dead-meat traps, from "crowns of *Tillandsia*," from beneath dung and fresh chips, from the rotting "fruit" at the base of an imported palm, in rotten grapefruit, and from under chips and rubbish on stumps.

5. BELONUCHUS AMPLUS, new species

Description.—Piceous, apical segment of abdomen rufotestaceous. *Head* with sides arcuately narrowed behind eyes, basal angles broadly rounded; eyes separated from base by one-third more than their length; in front with a feeble longitudinal impression extending nearly to middle; with very large and somewhat umbilicate punctures rather impressed, scattered except along middle and in front, dense behind eyes; with very fine strigulose ground sculpture. *Pronotum* nearly one-fourth longer than wide, widest at anterior fifth, feebly sinuately narrowed to rounded basal angles; discal series of five impressed punctures, with about six lateral punctures; ground sculpture even finer than on head. *Elytra* with moderately large but indefinite punctures, more or less united transversely and sometimes submuricate; without ground sculpture. *Abdomen* with moderately coarse punctures, sometimes excavated behind or submuricate. *Male*, unknown. *Female*, eighth sternite rounded. Length, 9 mm.

Type locality.—St. Lucia, one-half mile northwest of St. Remy on road to Soufrière (2½ miles southeast of Soufrière).

Types.—Holotype and one paratype, females, U.S.N.M. No. 52457, collected by me on April 22, 1936.

Records.—The following is the only record known to me:

St. Lucia: (Blackwelder station 221).

Specimens examined.—I have seen only the two types.

Remarks.—This species is very similar to *coelestinus* Bernhauer but is distinguished by its greater size and the absence of any bluish color on the head, pronotum, and elytra.

The types were collected from rotting cocoa pods.

6. BELONUCHUS COELESTINUS Bernhauer

Belonuchus coelestinus BERNHAUER, 1908b, p. 330.—BERNHAUER and SCHUBERT, 1914, p. 369.—LENG and MUTCHLER, 1914, p. 406.

Belonuchus coeruleus CAMERON, 1922, p. 122.—SCHEERPELTZ, 1933, p. 1377.

Belonuchus smithi FAUVEL, MS.—CAMERON, 1922, p. 122.

Description.—Head and pronotum shining bluish, elytra cyaneous, abdomen nigropiceous with two apical abdominal segments testaceous. *Head* quadrate, as long as wide; sides parallel with rounded posterior angles; in front with a median longitudinal impression; with four punctures between the eyes in a rectangle, remainder, except along middle, with large isolated punctures. *Pronotum* somewhat longer than wide, somewhat narrowed posteriorly; with dorsal series of five strong punctures, and at the sides with a few scattered punctures. *Elytra* strongly and densely punctate. *Abdomen* strongly, but not deeply, and somewhat densely punctate, posteriorly more scattered and fine. *Male*, unknown. *Female*, (sternites not modified). Length, 6 to 7 mm. (From Bernhauer and Cameron.)

Type locality.—St. Vincent (for both).

Types.—In the collections of the K. K. naturhistorischen Hofmuseums in Wien and Dr. Bernhauer. The type of *coeruleus* is in the British Museum.

Records.—The following are the records known to me:

St. Vincent: (Bernhauer, 1908; Leng and Mutchler, 1914; Cameron, 1922, as *coeruleus*).

Specimens examined.—I have seen only the two examples in the British Museum.

Remarks.—This species is known to me only from the two descriptions and the two examples in the British Museum. In addition to the correspondence of Dr. Bernhauer's and Dr. Cameron's descriptions, the type specimens almost certainly came from the same lot, since both were taken by H. H. Smith on St. Vincent.

From my brief examination of the type of *coeruleus* I can add the following dimensions: Head one-ninth wider than long, pronotum one-eighth longer than wide, elytra exactly as long as wide. This species will be readily distinguishable by its color.

I find no record of its habits.

7. BELONUCHUS COGNATUS Sharp

Belonuchus cognatus SHARP, 1885, p. 429.—BERNHAUER and SCHUBERT, 1914, p. 369.—SCHEERPELTZ, 1933, p. 1377. (Not Fauvel, 1891.)

Description.—Piceous black, abdomen piceocastaneous with two apical segments rufotestaceous. *Head* with sides arcuately expanded behind eyes and rounded into base, but with posterior angles marked by a ridge; eyes separated from base by fully twice their length; in front with a rather feeble impression about one-third as long as head; punctures large, umbilicate, and impressed but very sparse even at sides; with fine strigulose ground sculpture. *Pronotum* about one-tenth longer than wide, widest at anterior angles, sinuately narrowed to rounded basal angles; with each discal series reduced to a single puncture, and with only three or four lateral punctures; with ground sculpture a little less distinct than on head. *Elytra* with moderate punctures somewhat impressed, generally separated by their diameter or more by uneven intervals; surface indistinctly coriaceous. *Abdomen* with moderately sparse submuricate and excavated punctures; with trace of ground sculpture. *Male*, eighth sternite rounded but very feebly emarginate at apex. *Female*, eighth sternite rounded and not at all emarginate. Length, 9 to 10 mm.

Type locality.—Panama, Bugaba.

Types.—In the British Museum.

Records.—The following are the records known to me:

St. Vincent: (British Museum).

Trinidad: (Bryant, in Cameron collection), ward of Montserrat (Busck, in U.S.N.M.).

South America: VENEZUELA (Bernhauer and Schubert, 1914; Cameron collection), ARGENTINA (Scheerpeltz, 1933); COLOMBIA, VENEZUELA (British Museum).

Central America: BRITISH HONDURAS, GUATEMALA, NICARAGUA, PANAMA (Sharp 1885; Bernhauer and Schubert, 1914; British Museum); GUATEMALA (Cameron collection).

Specimens examined.—I have seen three examples from St. Vincent in the British Museum, two from Trinidad in Dr. Cameron's collection, and two from Trinidad in the United States National Museum.

Remarks.—This species is at once distinguished from all others in our fauna by the single puncture in the dorsal "series" of the pronotum. It differs from *haemorrhoidalis* of South America in having the entire two apical segments pale.

I find no record of its habits.

8. BELONUCHUS AGILIS Erichson

Belonuchus agilis ERICHSON, 1840, p. 423.—DUVAL, 1857, p. 37.—CHEVROLAT and FAUVEL, 1863, pp. 432, 433.—BERNHAUER and SCHUBERT, 1914, p. 369.—LENG and MUTCHLER, 1914, p. 406.—BERNHAUER, 1921, p. 170.—GOWDEY, 1926, p. 12.

Belonuchus chevrolati FAUVEL, 1863, p. 432.—BERNHAUER and SCHUBERT, 1914, p. 369.—LENG and MUTCHLER, 1914, p. 406.

Description.—Piceocastaneous, elytra darker, two apical abdominal segments testaceous. *Head* quadrate, sides arcuate but not narrowed, basal angles rounded but also marked by a ridge; eyes at nearly twice their length from base; very feebly impressed in front, punctures moderately large, impressed, scattered sparsely at sides; with fine strigulose ground sculpture. *Pronotum* a very little longer than wide, widest at anterior fifth, very strongly narrowed to rounded basal angles; discal series of five punctures, and with about six lateral punctures; ground sculpture as on head. *Elytra* with moderate punctures generally separated by more than their diameter by flat intervals; surface very finely and indistinctly coriaceous. *Abdomen* with very sparse punctures excavated behind; with very indistinct ground sculpture. *Male*, unknown. *Female*, eighth sternite rounded. Length, 9½ mm.

Type locality.—Cuba. Of *chevrolati*, Habana, Cuba.

Types.—Presumably in the Zoologische Museum, Berlin. Of *chevrolati*, presumably in the collection of Blanche Rancin, Caën, France.

Records.—The following are the records known to me:

Cuba: (Erichson, 1840; DuVal, 1857; Fauvel, 1863; Leng and Mutchler, 1914; British Museum), Habana (Fauvel, 1863, as *chevrolati*), Cayamas (Schwarz, in U.S.N.M.).

Jamaica: (Bernhauer and Schubert, 1914; Leng and Mutchler, 1914; Gowdey, 1926; British Museum).

[**Hispaniola:** (Bernhauer and Schubert, 1914.)]

[**South America:** COLOMBIA (Bernhauer and Schubert, 1914).]

Specimens examined.—I have seen six examples in the British Museum and one in the United States National Museum.

Remarks.—This species is distinguished by its coloration, the feeble impressions of the head, and the very sparse punctures of the abdomen. Its most striking feature, however, is the shape of the pronotum, which is so strongly narrowed posteriorly.

The specimen before me was taken "on ceiba" (silk-cotton tree).

The record of South America by Bernhauer and Schubert is probably an error, since they do not give the type locality.

9. BELONUCHUS BUGNIONI Fauvel

Belonuchus bugnioni FAUVEL, 1901, p. 86, pl. 2, fig. 13.—BERNHAUER and SCHUBERT, 1914, p. 369.—LENG and MUTCHLER, 1914, p. 406.

Belonuchus eximius BERNHAUER, 1917, p. 105.—SCHEERPELTZ, 1933, p. 1378.

Description.—Black, elytra bluish, last two abdominal segments and margin of third rufotestaceous. *Head* quadrate, coarsely and sparsely punctured at sides; in front with a median longitudinal impression. *Pronotum* one-third longer than wide, posteriorly sinuately narrowed; dorsal series of five punctures, with a few lateral punctures. *Elytra* densely and rather finely punctate. *Abdomen* sparsely punctate, especially on eighth tergite. *Male*, unknown. *Female*, (sternites not modified). Length, 6 to 7 mm. (From Fauvel and Bernhauer.)

Type locality.—Martinique. Of *eximius*, Guadeloupe.

Types.—Presumably in the collection of Blanche Rancin, Caën, France. Of *eximius*, presumably in the collection of Dr. Bernhauer.

Records.—The following are the records known to me:

Guadeloupe: (Bernhauer, 1917, as *eximius*).
Martinique: (Fauvel, 1901; Leng and Mutchler, 1914).

Specimens examined.—I have seen no examples of this species.

Remarks.—There seems to be little doubt that these two names represent a single species. It is distinguished by the blue color of the elytra alone and by the extent of the pale area at the apex of the abdomen.

I find no record of its habits.

10. BELONUCHUS DANFORTHI, new species

Description.—Head black, pronotum and abdomen picescent, elytra distinctly rufescent. *Head* rather strongly narrowed behind the eyes, the basal angles obliterated but densely and coarsely pubescent; eyes at one-half more than their length from base; without any depressions on front of vertex; with moderate punctures very sparse, absent on center of vertex; without ground sculpture. *Pronotum* over one-fifth longer than wide, widest at anterior third, feebly sinuately narrowed posteriorly, with all angles rounded; dorsal series of five punctures, and with about seven lateral punctures; with very fine strigulose ground sculpture. *Elytra* with moderately coarse punctures separated by less than their diameter by feebly convex intervals; with only a trace of ground sculpture. *Abdomen* rather finely and sparsely submuricately punctate; with rather indistinct transversely strigulose ground sculpture. *Male*, eighth sternite with an abrupt rounded median posterior lobe nearly as long as wide and about one-fifth as wide as apex of segment. *Female*, unknown. Length, 5½ mm.

Type locality.—Puerto Rico, about 13 miles east of Maricao and north of Yauco, elevation about 3,000 feet.

Types.—Holotype, male, U.S.N.M. No. 52459, collected by me on October 3, 1935.

Records.—The following is the only record known to me:

Puerto Rico: Maricao (Blackwelder station 47B).

Specimens examined.—I have seen only the unique type.

Remarks.—This is one of those species which is near the dividing line between *Belonuchus* and *Philonthus*. It has the united gular sutures of the former but the posterior femora are unarmed. The anterior femora are spinose beneath. It keys to *trinitatis* but can be immediately distinguished by its smaller size. The unimpressed front of the head and the male characters serve to separate it from all other West Indian species of either *Belonuchus* or *Philonthus*.

The type was found in rotting guava fruit.

11. BELONUCHUS MUNDUS Erichson

Belonuchus mundus ERICHSON, 1840, p. 425.—SOLSKY, 1869, p. 263.—BERNHAUER and SCHUBERT, 1914, p. 371.

Description.—Black, elytra rufotestaceous, abdomen sometimes piceseent. *Head* slightly narrowed behind eyes, which are about their length from base; anterior half with a median longitudinal impressed line; punctures coarse and impressed, absent on vertex and sparse even behind eyes; very finely and indistinctly strigulose. *Pronotum* about one-eighth longer than wide, very slightly wider in front, basal angles completely rounded; dorsal series of five (or sometimes six) punctures, and with about six lateral punctures; ground sculpture as on head. *Elytra* with moderately coarse but uneven punctures separated by their diameter or less; intervals smooth and flat. *Abdomen* with moderately coarse and dense punctures, sometimes submuricate; surface iridescent but without visible ground sculpture. *Male*, eighth sternite with a rounded triangular emargination twice as wide as deep. *Female*, eighth sternite rounded. Length, 6 to 7 mm.

Type locality.—"Americae meridionalis ins. St. Vincentii. .".

Types.—Either in the Hope Museum, Oxford, or the Zoologische Museum, Berlin.

Records.—The following are the records known to me:

St. Lucia: (Blackwelder stations 221, 226, 227, 230, 231).
St. Vincent: (Erichson, 1840; British Museum; U.S.N.M.).
Grenada: (British Museum; Blackwelder stations 132, 153A).
[South America: (Bernhauer and Schubert, 1914).]

Specimens examined.—I have seen 12 examples in the British Museum, 59 collected by me during 1935–37, and 3 in the United States National Museum. The last were from the original series, received in exchange.

Remarks.—This species is distinguished from all other West Indian species by having the elytra alone red.

The Bernhauer and Schubert record of South America is almost certainly an error, since they do not mention the type locality.

My specimens were all taken in freshly cut or rotting cocoa pods.

12. BELONUCHUS SATYRUS Erichson

Belonuchus satyrus Erichson, 1840, p. 421.—Bernhauer and Schubert, 1914, p. 371.

Description.—Iridescent black, elytra and apex of abdomen rufotestaceous. *Head* straight at sides, with basal angles broadly rounded; eyes at about their length from base; in front with a feeble longitudinal impression extending nearly to middle; with only the usual scattered large punctures; with very fine strigulose ground sculpture. *Pronotum* scarcely wider than long, widest at anterior angles, feebly narrowed posteriorly, basal angles completely rounded; discal series of five punctures, and with about five lateral punctures; ground sculpture as on head. *Elytra* with moderate punctures, frequently separated by less than their diameter and sometimes indistinctly transversely serial; without ground sculpture. *Abdomen* with moderately sparse submuricate punctures; without distinct ground sculpture although vaguely alutaceous. *Male*, supraantennal prominences strongly elevated; eighth sternite broadly and very feebly emarginate. *Female*, supraantennal prominences not elevated; eighth sternite rounded. Length, 10 to 12 mm.

Type locality.—Colombia.

Types.—Either in the Hope Museum, Oxford, or the Zoologische Museum, Berlin.

Records.—The following are the records known to me:

Trinidad: (Birch and Bryant, in British Museum; Busck, in U.S.N.M.), Manzanilla (Blackwelder stations 103A, 104A), Moruga (Blackwelder station 111), Sangre Grande (Blackwelder station 100A).

South America: Colombia (Erichson, 1840; British Museum), Colombia, Venezuela, New Granada (Bernhauer and Schubert, 1914).

Specimens examined.—I have seen 2 examples in the British Museum, 1 in the United States National Museum, and 10 collected by me in 1935–37.

Remarks.—This species is readily distinguished by its size and color, as well as the development of the antennal ridges in the male.

My specimens were all taken from cocoa pods (both freshly cut and well decayed).

13. BELONUCHUS DOMINICUS, new species

Description.—Head piceous, pronotum piceocastaneous, elytra rufocastaneous, abdomen rufous. *Head* feebly narrowed behind the eyes, sides rounded into base; eyes at a little more than their length from base; in front with a longitudinal impression half as long as head; with rather coarse and impressed punctures scattered at sides; with fine strigulose ground sculpture. *Pronotum* about one-tenth longer than wide, with sides nearly parallel, base broadly rounded; dorsal series of five punctures, and with about seven lateral punctures; ground sculpture as on head. *Elytra* with rather coarse and dense punctures, sometimes not sharply outlined and in transverse rows; without ground sculpture. *Abdomen* with sparse and moderately coarse punctures, generally excavated behind; without distinct ground sculpture, but somewhat iridescent. *Male*, eighth sternite with an abrupt rounded emargination twice as wide as deep. *Female*, eighth sternite rounded. Length, 8 to 9 mm.

Type locality.—Dominica, Hillsboro Estate, at mouth of the Layou River, Leeward side.

Types.—Holotype, male, and four paratypes, U.S.N.M. No. 52462, collected by me on June 2, 1936. One paratype in my own collection.

Records.—The following is the only record known to me:

Dominica: (Blackwelder station 237).

Specimens examined.—I have seen only the six types.

Remarks.—This species is distinct by its rufescent color, by its male characters, and by the parallel pronotum. The six specimens are very uniform in these respects and seem to preclude the possibility of the color being due to immaturity.

The types were found in rotting cocoa pods.

14. BELONUCHUS RUFIPENNIS (Fabricius)

Staphylinus rufipennis Fabricius, 1801, p. 597.—Erichson, 1840, p. 426.—Sharp, 1885, p. 431. (Not Stephens, 1829; not Solier, 1849.)

Staphylinus formosus Gravenhorst, 1806, p. 72.—Erichson, 1840, p. 426.—Sharp, 1876, p. 160; 1885, p. 431.

Cafius apicalis Dejean, 1833, p. 63.—Erichson, 1840, p. 426.

Belonuchus formosus (Gravenhorst) Erichson, 1840, p. 426.—Gemminger and Harold, 1868, p. 598 (as synonym of *rufipennis*).—Sharp, 1885, p. 431.—Blatchley, 1910, p. 379.—Bernhauer and Schubert, 1914, p. 370.—Leng, 1920, p. 108.—Scheerpeltz, 1933, p. 1378.

Philonthus rufipennis (Fabricius) Erichson, 1840, p. 426. (Not Gravenhorst, 1802; not Solier, 1849.)

Belonuchus pallipes Melsheimer, 1846, p. 35.—Lacordaire, 1854, p. 80.—Gemminger and Harold, 1868, p. 598.—Bernhauer and Schubert, 1914, p. 370.—Leng, 1920, p. 108.

Belonuchus rufipennis (Fabricius) Gemminger and Harold, 1868, p. 598 (as valid).—Sharp, 1885, p. 431.—Bernhauer and Schubert, 1914, p. 370.

Belonuchus apicalis (Dejean) Gemminger and Harold, 1868, p. 598.

Description.—Black, elytra rufotestaceous, four basal tergites of abdomen rufous. *Head* rounded posteriorly from the eyes into base; eyes separated from base by about their length; in front with a longitudinal impression about one-third as long as head; with only a few scattered punctures, none along middle; with very fine strigulose ground sculpture. *Pronotum* scarcely longer than wide, scarcely at all narrowed posteriorly, basal angles completely rounded; with ground sculpture as on head. *Elytra* with moderately coarse punctures separated by their diameter or more, laterally with less flat intervals; without ground sculpture. *Abdomen* with sparse and moderately fine submuricate punctures, without distinct ground sculpture but vaguely alutaceous. *Male*, eighth sternite with a feeble triangular emargination three times as wide as deep. *Female*, eighth sternite rounded. Length, 6½ to 7½ mm.

Type locality.—"Americae meridionali." Of *formosus*, Carolina; of *apicalis*, Cayenne; of *pallipes*, Pennsylvania.

Types.—Disposition not known to me. Of *formosus*, presumably in the Zoological University Museum, Breslau; of *apicalis*, not known to me; of *pallipes*, presumably in the Museum of Comparative Zoology, Cambridge, Mass.

Records.—The following are the records known to me:

Tobago: (Blackwelder station 116B).

Trinidad: (Bryant, in Cameron collection), Moruga (Blackwelder station 111), Manzanilla (Blackwelder station 103A), Port of Spain (Fairchild, in M.C.Z.) Mount Tucuche (Darlington, in M.C.Z. and U.S.N.M.).

South American: (Fabricius, 1801), COLOMBIA, CAYENNE (Erichson, 1840), COLOMBIA, BRAZIL (Sharp, 1876, 1885), ARGENTINA (Scheerpeltz, 1933).

Central America: MEXICO, BRITISH HONDURAS, GUATEMALA, NICARAGUA, PANAMA (Sharp, 1885).

North America: FLORIDA, GEORGIA, CAROLINA, NEW JERSEY, NEW YORK, PENNSYLVANIA, OHIO, QUEBEC, INDIANA, NEW MEXICO, ARIZONA (Gravenhorst, 1806; Erichson, 1840; Melsheimer, 1846; Sharp, 1885; Leng, 1920; Blatchley, 1910; etc.).

Specimens examined.—From the West Indies I have seen 3 examples in Dr. Cameron's collection, 3 from the Museum of Comparative Zoology, and 14 collected by me in December 1935. Numerous examples from North and South America were also examined.

Remarks.—I regret the necessity for changing an old and well-established name but can find no other tenable procedure. The Gemminger and Harold catalog puts the names *formosus* and *rufipennis* in their proper relationship, but subsequent writers have not followed that work in this respect. The Bernhauer and Schubert catalog, although recognizing that the two are equal, places the older name as a synonym of the younger. Unless *formosus* be held to be a distinct species, it cannot be retained unless *ruficollis* is a homonym. Such a previous use of the name I am not able to find, and I therefore use *ruficollis* as the valid name.

This species is distinguished by its red abdomen with black apex, which is a combination unique among West Indian representatives of this genus.

My specimens were all taken from freshly cut or rotten cocoa pods.

15. BELONUCHUS CACAO, new species

Description.—Head rufopiceous, pronotum rufous, elytra and abdomen rufocastaneous, the tip of latter rufescent but not strongly set off from rest. *Head* quadrate, posterior angles marked by ridges, eyes at one-half more than their length from base; in front with a strong median longitudinal impression, about half as long as head; with large impressed punctures scattered not very sparsely at sides; with fine strigulose ground sculpture. *Pronotum* about one-sixth longer than wide, widest at anterior angles and arcuately narrowed to rounded basal angles; discal series with five punctures, and with about seven lateral punctures. *Elytra* with moderate punctures separated by about their diameter but often indistinct and with intervals forming indefinite transverse ridges; surface finely coriaceous. *Abdomen* with fine and not very sparse punctures, generally submuricate; with very fine strigulose ground sculpture. *Male*, unknown. *Female*, eighth sternite truncate. Length, 5½ mm.

Type locality.—Trinidad, one-half mile south-southwest of Manzanilla junction on the Plum Road.

Types.—Holotype and paratype, females, U.S.N.M. No. 52464, collected by me on December 18, 1935. The paratype was taken at Sans Souci on December 15, 1935.

Records.—The following are the records known to me:

Trinidad: Manzanilla (Blackwelder station 102), Sans Souci (Blackwelder station 98B).

Specimens examined.—I have seen only the two types.

Remarks.—This species is distinguished by its very much depressed form, by its quadrate head, and by the arcuate sides of the pronotum.

The types were taken in rotting cocoa pods.

16. BELONUCHUS ANTIGUAE, new species

Description.—Rufotestaceous throughout. *Head* not narrowed behind eyes but broadly rounded from eyes to neck; eyes separated from base by a little more than their length; in front with a longitudinal median impression about one-third as long as head; with rather large impressed punctures scattered sparsely at sides; with very fine strigulose ground sculpture. *Pronotum* about as wide as long, widest in front, sinuately narrowed posteriorly to rounded basal angles; dorsal series with five punctures, and with about six lateral puctures; with ground sculpture as on head. *Elytra* with moderate punctures frequently individually indistinct because of uneven surface, often arranged in transverse rows; without ground sculpture. *Abdomen* moderately sparsely and finely punctate, submuricately or excavately; without distinct ground sculpture but somewhat iridescent. *Male*, eighth sternite with a feeble triangular emargination three times as wide as deep. *Female*, eighth sternite rounded. Length, 6 to 7½ mm.

Type locality.—Antigua, near summit of Boggy Peak, parish of St. Mary, elevation 1,300 feet.

Types.—Holotype, male, and five paratypes, U.S.N.M. No. 52461, collected by Dr. H. E. Box on May 30, 1937. One paratype has been deposited in the British Museum and one in Dr. Cameron's collection.

Records.—The following is the only record known to me:

Antigua: (Box, as Blackwelder station 444Q).

Specimens examined.—I have seen only the nine types.

Remarks.—This species is very distinct by its coloring, and it is of such uniform color throughout these nine examples that I cannot ascribe it to immaturity.

The types were collected "from inside of scarlet bracts of a large unknown *Heliconia* sp. (one of the rarest plants of Antigua) in dense mesophytic woodlands."

LXV. Genus CAFIUS Stephens

Cafius STEPHENS, 1829, p. 283. (Not Boisduval and Lacordaire, 1835.)
Subgenus *Remus* HOLME, 1837, p. 64. (Not Thomson, 1860; not Mulsant and Rey, 1875.)
Pseudidus MULSANT and REY, 1875, p. 574.
Subgenus *Bryonomus* CASEY, 1885, p. 313.
Subgenus *Euremus* BIERIG, 1934a, p. 68.
Subgenus *Philonthopsis* KOCH, 1936, p. 178.
Subgenus *Pseudoremus* KOCH, 1936, p. 179.

Genotypes.—*Staphylinus fucicola* Samouelle = *Cafius fucicola* (Samouelle) (designated by Lacordaire, 1854). Of *Remus*, *R. sericeus* Holme (monobasic); of *Pseudidus*, *Remus sericeus* Holme = *Pseudidus sericeus* (Holme) (designated by Tottenham, 1939); of *Bryonomus*, *Cafius canescens* Mäklin = *Bryonomus canescens* (Mäklin) (designated here); of *Philonthopsis*, *Cafius sabulosus* Fauvel = *Cafius* (*Philonthopsis*) *sabulosus* Fauvel (designated here); of *Pseudoremus*, *Cafius lithocharinus* LeConte = *Cafius* (*Pseudoremus*) *lithocharinus* LeConte (designated here); of *Euremus*, *Philonthus bistriatus* Erichson = *Cafius* (*Euremus*) *bistriatus* (Erichson) (designated here).

Diagnosis.—Head and pronotum without dense umbilicate punctures, generally margined beneath the eyes; antennae widely separated at front of head, outer segments densely pubescent from the fourth joint; labrum bilobed; palpi moderately stout, fourth segment of maxillary much longer than third, fusiform, labial palpus similar to maxillary; gular sutures united basally; pronotum with lateral margin double, the lines united near the coxal articulation; anterior coxal cavities entirely open behind; front coxae large, exserted; posterior coxae contiguous, "triangular," sometimes with a small expansion over the base of femur; first and second abdominal sternites absent; intersegmental membranes of abdomen marked with a pattern of irregular rounded sclerotized areas arranged in longitudinal bands; femora unarmed.

Remarks.—As far as I can determine this genus has always been ascribed to Stephens (1832) who was the first to give a diagnosis of it. It was, however, validated by Mannerheim in 1830 and by Stephens in 1829 by the listing of several valid species, and may have been used even earlier. The genus is readily recognized by its habitus as well as by its littoral habits.

Koch (1936) has partially revised the genus, although a false impression of completeness is given by his paper, which entirely omits mention of over 15 described species or names. It should be pointed out also that there is apparently an error in the key at couplet 25 and 30. The subgenus *Remus* apparently can be distinguished from only part of the subgenus *Pseudoremus.*

I have examined 171 examples from the West Indies and assign them to three species, all previously described.

KEY TO WEST INDIAN SPECIES OF CAFIUS

1. Head with deeply impressed median line anteriorly__________ 2. caribeanus
   Head without impressed median line anteriorly__________________________ 2
2. Pronotum with series of punctures along sides of median space. 3. bistriatus
   Pronotum without single series of punctures along sides of median space. 1. subtilis

1. CAFIUS SUBTILIS Cameron

Cafius subtilis Cameron, 1922, p. 121.—Scheerpeltz, 1933, p. 1370.—Bierig, 1934a, pp. 65, 66.

Cafius sericeus var. *subtilis* Cameron, Koch, 1936, p. 192.

Description.—Black, pronotum sometimes picescent, elytra and abdomen castaneous. *Head* quadrate, not enlarged behind eyes but with basal angles moderately rounded; eyes separated from base by about one-half more than their length; without any longitudinal impressions on vertex; with moderately coarse and somewhat umbilicate punctures (not impressed) scattered rather densely except along middle; with fine and dense scaly ground sculpture. *Pronotum* over one-fifth longer than wide, widest in anterior fifth, thence scarcely at all narrowed to narrowly rounded posterior angles; disk with median band impunctate but not outlined by punctures that are distinctly serial; punctures at sides moderately densely and evenly scattered with scaly ground sculpture more distinct than on head. *Elytra* without punctures but with dense tuberculate sculpture with minute and indistinct ground sculpture intermixed. *Abdomen* finely and densely submuricately punctate; with dense but not very distinct ground sculpture. *Male*, eighth sternite with triangular emargination as deep as wide, with inner edges beveled and outer angles rounded. *Female*, eighth sternite rounded. Length, 3½ to 4½ mm.

Type locality.—Jamaica, Port Royal.

Types.—In Dr. Cameron's collection.

Records.—The following are the records known to me:

Cuba: (Koch, 1936), Playa de Marianao (Bierig, 1934; U.S.N.M.).
Jamaica: (Bierig, 1934; Koch, 1936), Port Royal (Cameron, 1922).
Puerto Rico: San Juan (Blackwelder station 43A).
St. Croix: (Blackwelder stations 326, 329, 344).
St. Kitts: (Blackwelder station 307).
Antigua: (Blackwelder station 276).
Montserrat: (Blackwelder station 269).
Guadeloupe: Basse Terre (Blackwelder station 77A).
Dominica: (Blackwelder station 240½B).

Specimens examined.—I have seen 13 examples in Dr. Cameron's collection and 22 collected by me during 1935–37.

Remarks.—This species is very similar to *sericeus* Holme, *aguayoi* Bierig, and *pruinosus* Erichson. Whether these represent species or varieties (subspecies) I am not in a position to decide. The length of the antennae, the punctation of the head, and the anterior angles of the pronotum are so variable in both the West Indian examples and in *sericeus* from the Eastern Hemisphere as well as *aquayoi* from eastern North America that they will not serve to distinguish them. For the present it is best to retain *subtilis* as a valid species, at least until adequate series of all these species can be studied. This species belongs in the subgenus *Remus* Holme.

I have found it under seaweed and drift on sandy beaches.

2. CAFIUS CARIBEANUS Bierig

Caflus corallicola var. *caribeanus* Bierig, 1934a, pp. 67, 68, fig. 2.—Koch, 1936, p. 175, 176, 186.

Description.—Black, the abdomen more or less castaneous. *Head* straight or slightly rotund behind the eyes with the angles rounded; the eyes separated from base by about their length; with a fine impressed median line from between the eyes to front margin; with coarse, somewhat impressed and umbilicate punctures scattered rather densely except along middle and in front; with distinct strigulose ground sculpture. *Pronotum* about one-fifth longer than wide, widest at anterior third, feebly narrowed to basal third and thence straight to prominent basal angles; with smooth midline marked by two confused rows of moderate punctures, and with rather densely but irregularly scattered punctures laterally with more or less smooth band next to the series; with strigulose ground sculpture more distinct than on head. *Elytra* without distinct punctures but densely sculptured, apparently with two sizes of asperities. *Abdomen* with fine and moderately dense submuricate punctures; with indistinct ground sculpture. *Male*, eighth sternite with a triangular emargination about as deep as wide with outer angles rounded. *Female*, eighth sternite rounded. Length, 5 to 6 mm.

Type locality.—Cuba, Playa de Marianao.

Types.—In collection of Alexander Bierig. One "cotype" (paratype) is deposited in the United States National Museum (No. 52745).

Records.—The following are the records known to me:

Cuba: Playa de Marianao (Bierig, 1934; United States National Museum).
Jamaica: Bluefields Bay (Blackwelder station 418).
Puerto Rico: San Juan (Blackwelder station 43A), Humacao (Blackwelder stations 55, 56).
St. Croix: (Blackwelder stations 326, 336).
Antigua: (Blackwelder station 272).
Guadeloupe: Basse Terre (Blackwelder station 77A).
Dominica: (Blackwelder station 240½B).
Grenadines: Carriacou (Blackwelder station 143A).
Grenada: (Blackwelder station 163).

Specimens examined.—I have seen a cotype received from Sr. Bierig and 20 examples collected by me during 1935–37.

Remarks.—I have compared this species with examples of *corallicola* from Singapore (identified by Dr. Cameron) and find it to be very similar, if not indistinguishable. However, since I have only one Cuban example and two Singapore ones I do not feel in a position to decide the variability of the characters that present the slight differences. Until the species in this group can be studied with adequate material (and such has not been available to anyone heretofore, as far as West Indian examples are concerned), it seems best to retain *caribeanus* as a valid species.

I have found it under seaweed and drift on sandy beaches.

3. CAFIUS BISTRIATUS (Erichson)

Philonthus bistriatus ERICHSON, 1840, p. 502.—LECONTE, 1863, pp. 39, 40.—SCHWARZ, 1878, p. 441.
Philonthus bilineatus ERICHSON, 1840, p. 503.—BERNHAUER and SCHUBERT, 1914, p. 330.—LENG and MUTCHLER, 1914, p. 406.—SCHEERPELTZ, 1933, p. 1369.
Cafius bistriatus (Erichson) HORN, 1884, p. 237.—WICKHAM, 1895, pp. 293, 294.—SCHEERPELTZ, 1933, p. 1369.—KOCH, 1936, pp. 175, 187.
Cafius vistriatus HAMILTON, 1894, p. 13 (misspelling).
Cafius bilineatus (Erichson) SCHEERPELTZ, 1933, p. 1369.—KOCH, 1936, pp. 176, 187.
Cafius rufifrons BIERIG, 1934b, pp. 67, 68.—KOCH, 1936, pp. 176, 187.
Cafius rufrifrons BIERIG, 1934b, p. 67, fig. 3 (misspelling).

Description.—Head black, rest rufocastaneous with pronotum sometimes feebly picescent. *Head* not enlarged behind eyes but with basal angles moderately rounded; eyes separated from base by one-third more than their length; without any longitudinal impression on the vertex; with moderately coarse umbilicate punctures (not impressed) scattered not very densely but absent along center and in front; with fine but very distinct and dense scaly ground sculpture. *Pronotum* scarcely at all longer than wide, widest at anterior angles, sinuately narrowed to posterior angles, which are rounded but discernible; with impunctate midline marked by two fairly regular series of large and somewhat umbilicate punctures, with rather dense punctures laterally separated by an irregular smooth space from the series; with ground sculpture less distinct than on head. *Elytra* with dense punctures obscured by irregular and indefinite ground sculpture. *Abdomen* with fine but not very dense submuricate punctures; with indistinct ground sculpture especially apically. *Male*, eighth sternite with a moderate rounded emargination wider than deep and bordered with a translucent membrane. *Female*, eighth sternite rounded. Length, 5 to 7 mm.

Type locality.—New York, Long Island. Of *bilineatus*, St. John; of *rufifrons*, Cuba, Playa de Marianao.

Types.—Presumably in the Zoologische Museum, Berlin. Of *bilineatus*, either in the Hope Museum, Oxford, or the Zoologische Museum, Berlin; of *rufifrons*, holotype and allotype in Bierig collection, and a "cotype" in the United States National Museum (No. 52746).

Records.—The following are the records known to me:

Bahamas: Water Cay, Egg Island (Wickham, 1895), Egg Island, Eleuthera Island, Harbor Island (Wickham, in U.S.N.M..)
Cuba: Playa de Marianao (Bierig, 1934, as *rufifrons*).
Jamaica: Port Royal (Cameron collection; Koch, 1936), Montego Bay (Blackwelder station 407), Bluefields Bay (Blackwelder station 418).
Mona Island: (Hoffman, in U.S.N.M.).
Puerto Rico: San Juan (Blackwelder station 43A).
St. Thomas: (Koch, 1936).
St. John: (Erichson, 1840, as *bilineatus*).
St. Croix: (Blackwelder station 326).
St. Kitts: (Blackwelder station 307).
Antigua: (Koch, 1936; Blackwelder station 276).
Montserrat: (Blackwelder station 268).
Guadeloupe: (Blackwelder station 77A).
Dominica: (Blackwelder station 240½B).
St. Lucia: (Blackwelder station 232).
Barbados: (Blackwelder stations 190, 192, 197).
Grenadines: Carriacou (Blackwelder station 143A).
Grenada: (Blackwelder station 163).
Tobago: (Blackwelder station 120).

Trinidad: Balandra Bay (Blackwelder station 97).
South America: (Koch, 1936; Bernhauer and Schubert, 1914, as *bilineatus*).
North America: (Erichon, 1840; Horn, 1884; Koch, 1936), FLORIDA, VIRGINIA, MASSACHUSETTS, NEW JERSEY, NEW YORK, RHODE ISLAND, QUEBEC (U.S.N.M.; etc.).

Specimens examined.—I have seen 7 examples in Dr. Cameron's collection, 12 in the United States National Museum, and 96 collected by me during 1935-37.

Remarks.—This species evidently ranges from the Massachusetts coast to South America by way of the West Indies but has not been recorded from the Gulf of Mexico or from Central America. West Indian examples seem to be identical with North American ones.

This is the only species of Staphylinidae so far recorded from Mona Island. It belongs in the subgenus *Euremus* Bierig. The description was drawn from a series from Puerto Rico.

The example in the United States National Museum from Miami, Florida (from Bierig collection, as *ruffrons*), differs decidedly from the series herein identified as *bistriatus* in the extent of the ground sculpture of the head and pronotum. This specimen is apparently immature, but if it is really the *ruffrons* of Bierig, then that name may represent a valid species. On the basis of the West Indian examples and the original description I believe that *ruffrons* is the same as *bistriatus.*

I have found it under seaweed and drift on sandy beaches.

LXVI. Genus ERICHSONIUS Fauvel

Bisnius THOMSON, 1860, p. 168. (Not Stephens, 1829.)
Erichsonius FAUVEL, 1872, p. 427. (Not Schubert, 1911.)
Actobius FAUVEL, 1876, p. 72.
Neobisnius GANGLBAUER, 1895, p. 464 (new name for *Erichsonius*).

Genotypes.—*Staphylinus cinerascens* Gravenhorst=*Erichsoniu*
cinerascens (Gravenhorst) (designated by Tottenham, 1939). Of *Actobius*, *Staphylinus cinerascens* Gravenhorst=*Actobius cinerascens* (Gravenhorst) (Rules, Article 30, II, *f*); of *Neobisnius*, *Staphylinus cinerascens* Gravenhorst=*Neobisnius cinerascens* (Gravenhorst) (Rules, Article 30, II, *f*).

Diagnosis.—Head and pronotum without dense umbilicate punctures, not margined beneath the eyes; antennae widely separated at the front of head, outer segments densely pubescent from the fourth joint; labrum bilobed; palpi moderately stout, fourth segment of maxillary longer than third, subulate, labial similar to maxillary; gular sutures very approximate posteriorly but not united; lateral margin of pronotum double, the lines united near the coxal articulation; anterior coxal cavities entirely open behind; front coxae large, exserted; posterior coxae contiguous, "triangular"; first and second abdominal sternites absent; intersegmental membranes of abdomen with a pattern of irregular rounded sclerotized areas arranged in longitudinal bands; femora unarmed.

Remarks.—The name *Neobisnius* was proposed by Ganglbauer apparently under the impression that *Erichsonius* was preoccupied. However, the two previous uses (Dana, 1849, and Westwood, 1849) both use the spelling *Erichsonia*, which does not preoccupy *Erichsonius* under our present code of nomenclatural procedure. It therefore becomes necessary to restore *Erichsonius* as the valid name of this genus.

Seven species of this genus have been described from the West Indies, and I have made every effort to recognize them. I have seen type material of five of these species and have material in considerable series from Cuba to Grenada. These I am unable to separate into more than one species. This one may very likely be found on some part of the mainland of America as well, but I have not been able to recognize it among the species available to me.

1. ERICHSONIUS HUMILIS (Erichson)

Philonthus humilis ERICHSON, 1840, p. 512.—CHEVROLAT and FAUVEL, 1863, p. 435.—LENG and MUTCHLER, 1914, p. 406.—WOLCOTT, 1924, p. 78; 1936, p. 197.

Neobisnius humilis (Erichson) BERNHAUER and SCHUBERT, 1914, p. 323.—LENG and MUTCHLER, 1914, p. 406.—BIERIG, 1933, pp. 50, 54.

Neobisnius margipallens BERNHAUER and SCHUBERT, 1914, p. 323. (Not *Lathrobium margipallens* DUVAL, 1857, p. 41.)

Neobisnius limbatus CAMERON, 1922, p. 118.—SCHEERPELTZ, 1933, p. 1327.

Neobisnius funerulus CAMERON, 1922, p. 119.—SCHEERPELTZ, 1933, p. 1327.

Neobisnius nigrocoeruleus CAMERON, 1922, p. 118.

Neobisnius nigrocaeruleus SCHEERPELTZ, 1933, p. 1327 (misspelling).

Neobisnius carbonarius BIERIG, 1933, p. 49.

Neobisnius demmeli BIERIG, 1933, p. 54.

Description.—Piceous, the pronotum sometimes rufescent, narrow apex of elytra and abdominal segments generally pale. *Head* subquadrate with angles broadly rounded, seldom visibly narrowed behind eyes; eyes separated from base by a little more than their length; with moderate punctures of even size, generally separated by less than their diameter but rather indistinct posteriorly; sometimes with very indistinct ground sculpture. *Pronotum* over one-fifth longer than wide, widest in anterior fourth and thence emarginately narrowed to rounded base; smooth midline narrow, not outlined by punctures in series; punctures similar to those on head but generally denser, without large smooth areas but punctures indistinct at sides; sometimes with very indistinct ground sculpture. *Elytra* with fine and rather dense submuricate punctures, not distinct if viewed from behind. *Abdomen* very finely and moderately densely submuricately punctate, with indistinct ground sculpture. *Male*, eighth sternite with a small semicircular emargination. *Female*, eighth sternite broadly rounded. Length, 3 to 5 mm.

Type locality.—Puerto Rico. Of *limbatus*, Haiti; of *nigrocoeruleus*, Jamaica (although Dr. Cameron recorded this species only from Haiti, the example labeled type is from Jamaica); of *funerulus*, St. Vincent; of *demmeli*, Cuba, province of Pinar del Rio, Sierra del Rosario, vicinity of Cayajabos; of *carbonarius*, Cuba, province of Pinar del Rio, Sierra del Rosario, Cayajabos.

Types.—Either in the Hope Museum, Oxford, or the Zoologische Museum, Berlin. Of *limbatus* and *nigrocoeruleus*, in Cameron collection; of *funerulus*, in the British Museum; of *carbonarius* and *demmeli*, in collection of Alexander Bierig (one "cotype" of the latter in the United States National Museum (No. 52744).

Records.—The following are the records known to me:

Cuba: (Chevrolat and Fauvel, 1863; Leng and Mutchler, 1914; Cameron collection, as *nigrocoeruleus* and *humilis*), Cayajabos (Bierig, 1933, as *demmeli* and *carbonarius;* U.S.N.M.), Almendares (Bierig, in U.S.N.M.), Cayamas (Schwarz, in U.S.N.M.), Aspiro (Bierig, in U.S.N.M., as *carbonarius*), Sierra del Rosario (Bierig, 1933, as *carbonarius* and *demmeli*), Soledad (Darlington, in M. C. Z. and U.S.N.M.), Cauto El Cristo, Oriente (Darlington, in M.C.Z. and U.S.N.M.), Rangel Mountains, Pinar del Rio (Darlington, in M.C.Z. and U.S.N.M.).

Jamaica: (Cameron, 1922, as *nigrocoeruleus;* Hubbard, in U.S.N.M.), Black River (Blackwelder station 416), May Pen (Blackwelder station 424A), Milk River (Blackwelder station 415), Spanish Town (Blackwelder station 377), Santa Cruz (Blackwelder station 421), Moneague (Darlington, in M.C.Z.), Kingston (Darlington, in M.C.Z.; Blackwelder station 379).

Hispaniola: HAITI (Cameron, 1922, as *limbatus* and *nigrocoeruleus;* British Museum; Cameron collection); DOMINICAN REPUBLIC, Barahona (Darlington, in M.C.Z. and U.S.N.M.), Sánchez (Darlington, in M.C.Z.), Constanza (Darlington, in M.C.Z. and U.S.N.M.), San José de las Matas (Darlington, in M.C.Z. and U.S.N.M.), Puerto Plata (Darlington, in M.C.Z.).

Puerto Rico: (Erichson, 1840; Chevrolat and Fauvel, 1863; Leng and Mutchler, 1914; Wolcott, 1924, 1936), Jayuya (Oakley, in U.S.N.M.).

Virgin Islands: Tortola (Cameron collection).

St. Croix: (Chevrolat and Fauvel, 1863; Leng and Mutchler, 1914; Blackwelder station 341).

St. Lucia: (Blackwelder stations 209A, 211A; Cameron collection).

Barbados: (Blackwelder station 198B).

St. Vincent: (British Museum and Cameron collection, as *arduus* Sharp; Cameron, 1922, as *funerulus;* Blackwelder stations 166, 170, 176A).

Grenada: (H. H. Smith, in British Museum and Cameron collection, as *arduus;* U.S.N.M.).

Specimens examined.—I have seen 14 examples in the British Museum, 18 in Dr. Cameron's collection, 31 from the Museum of Comparative Zoology, 8 in the United States National Museum, and 2 others received from Sr. Bierig, and 126 collected by me during 1935–37.

Remarks.—This is a variable species in size, color, and details of sculpture. I was unable to separate the specimens segregated under the above names in the British Museum and Dr. Cameron's collection, and cannot now separate my specimens satisfactorily. It seems fairly certain that only one species is represented, occurring from Cuba to Grenada, at least. It differs from *arduus* Sharp of Central America in size, the unimpressed front of the head, and many details of sculpture.

One example from the Dominican Republic and one from Trinidad differ from the others in the punctation of the pronotum and elytra. They do not fall in the range of variation observed in the large series, but I am unwilling to describe them as new from unique specimens. They are now in the Museum of Comparative Zoology.

I have collected this species from dung and manure, from the muddy banks of ponds, from beneath stones along streams, and flying at dusk.

LXVII. Genus STAPHYLINUS Linnaeus

Staphylinus LINNAEUS, 1758, p. 421.
Staphilynus SCHAEFFER, 1779, index (misspelling).
Staphilinus OLIVIER, 1791, p. 378 (misspelling).
Staphylinus FAIRMAIRE and GERMAIN, 1861, p. 413 (misspelling).
Ouchemus DES GOZIS, 1886, p. 14.
Subgenus *Platydracus* THOMSON, 1858, p. 29.
Bemasus MULSANT and REY, 1875, p. 257.
Subgenus *Dinothenarus* THOMSON, 1858, p. 29.
Subgenus *Abemus* MULSANT and REY, 1875, p. 242.
Subgenus *Parabemus* REITTER, 1909, p. 118.
Subgenus *Chitocompsus* BERNHAUER, 1913, p. 232.
Subgenus *Euryolinus* BERNHAUER, 1915, p. 297.
Subgenus *Nesiolinus* BERNHAUER, 1915, p. 122.
Subgenus *Plesiolinus* BERNHAUER, 1916, p. 93.
Subgenus *Chaetodracus* MÜLLER, 1926, p. 27.
Subgenus *Apostenolinus* BERNHAUER, 1934, p. 9.

Genotypes.—*S. maxillosus* Linnaeus (designated by Latreille, 1810; later designations include *S. erythrocephalus* Fabricius, by Samouelle, 1819; *S. murinus* Linnaeus, by Curtis, 1839; *S. olens* Müller, by Blanchard, 1845; and *S. hirtus* Linnaeus, by des Gozis, 1886). Of *Ouchemus*, *Staphylinus erythropterus* Linnaeus=*Ouchemus erythropterus* (Linnaeus) (original designation); of *Platydracus*, *Staphylinus stercorarius* Olivier=*Platydracus stercorarius* (Olivier) (monobasic); of *Bemasus*, *Staphylinus lutarius* Gravenhorst=*Bemasus lutarius* (Gravenhorst) (designated here); of *Dinothenarus*, *Staphylinus pubescens* DeGeer=*Dinothenarus pubescens* (DeGeer) (monobasic); of *Abemus*, *Staphylinus chloropterus* Panzer=*Abemus chloropterus* (Panzer) (designated here); of *Parabemus*, *Staphylinus* *fossor* Scopoli=*Parabemus fossar* (Scopoli) (monobasic); of *Chitocompsus*, *Staphylinus polyphemus* Bernhauer=*Chitocompsus polyphemus* (Bernhauer) (monobasic); of *Euryolinus*, *Staphylinus semicyaneus* Bernhauer=*Euryolinus semicyaneus* (Bernhauer) (monobasic); of *Nesiolinus*, *Staphylinus bakeri* Bernhauer=*Nesiolinus bakeri* (Bernhauer) (designated here); of *Plesiolinus*, *Staphylinus costaricensis* Bernhauer=*Plesiolinus costaricensis* (Bernhauer) (designated here); of *Chaetodracus*, *Staphylinus patricius* Bernhauer=*Chaetodracus patricius* (Bernhauer) (monobasic); of *Apostenolinus*, *Staphylinus* (*Apostenolinus*) *cariniceps* Bernhauer (monobasic).

Diagnosis.—Head and pronotum with dense umbilicate punctures, usually feebly margined beneath the eyes; antennae widely separated at front of head, outer segments densely pubescent from the fourth joint; labrum strongly bilobed; palpi moderately elongate, fourth segment of maxillary much longer than third, labial similar to maxillary; gular sutures separate throughout; lateral margin of pronotum double, the lines united, side piece inflexed; anterior coxal cavities entirely open behind; front coxae large, exserted; posterior coxae contiguous, "triangular"; first and second abdominal sternites absent, except possibly for a remnant of the second at sides; intersegmental membranes of abdomen with a pattern of irregular rounded sclerotized areas arranged in longitudinal bands; femora unarmed.

Remarks.—In the Bernhauer and Schubert Catalog the genera *Staphylinus* and *Ocypus* are more or less united, with each group containing several subgenera. The characters that distinguish the two appear to be of generic value, and I am therefore omitting *Ocypus* and its subgenera from *Staphylinus*. Inasmuch as these names are somewhat mixed in the Catalog, I list below the names that have been coupled with *Staphylinus* but that are not herein placed in that genus.

Genus *Ocypus* Samouelle, 1819, p. 172.
Anodus Nordmann, 1836, p. 11. (Not Spix, 1829.)
Ocys Curtis, 1839, p. 758 (misspelling).
Acypus Erichson, 1839a, p. 444 (misspelling).
Alapsodus Tottenham, 1939, p. 226 (as new name for *Anodus*).
Subgenus *Goërius* Stephens, 1829, p. 275.
Rayacheila Motschulsky, 1845, p. 40 (typographical error).
Ragacheila Mannerheim, 1846, p. 226 (misspelling).
Rhagacheila Mannerheim, 1846, p. 226 (misspelling).
Rhagochila Motschulsky, 1858, p. 668.
Matidus Motschulsky, 1860a, p. 569.
Subgenus *Tasgius* Stephens, 1829, p. 276.
Subgenus *Pseudocypus* Mulsant and Rey, 1875, p. 291.
Subgenus *Parocypus* Bernhauer, 1915f, p. 52.
Subgenus *Protocypus* Müller, 1923, p. 136.

Subgenus *Aulacocypus* Müller, 1925, p. 40.
Subgenus *Neotasgius* Müller, 1925, p. 41.
Subgenus *Xanthocypus* Müller, 1925, p. 41.

This rearrangement is of course based on the genotypes. I have depended on the Bernhauer, Schubert, and Scheerpeltz catalogs for the relationships of the species designated. Of the above the genotypes are as follows: Of *Ocypus*, *Staphylinus cyaneus* Paykull=*Ocypus cyaneus* (Paykull) (original designation); of *Anodus*, *A. falcifer* Nordmann (designated by Tottenham, 1939); of *Alapsodus*, *Anodus falcifer* Nordmann=*Alapsodus falcifer* (Nordmann) (original designation); of *Goërius*, *Staphylinus olens* Müller = *Goërius olens* (Müller) (designated here); of *Rhagochila*, *R. inderiensis* Motschulsky (monobasic); of *Matidus*, *M. forficularius* Motschulsky (monobasic); of *Tasgius*, *Staphylinus rufipes* Latreille = *Tasgius rufipes* (Latreille) (monobasic); of *Pseudocypus*, *Staphylinus mus* Brullé=*Pseudocypus mus* (Brullé) (designated by Tottenham, 1939); of *Parocypus*, *Staphylinus* (*Parocypus*) *dehradunensis* Bernhauer (monobasic); of *Protocypus*, *Staphylinus* (*Protocypus*) *fulvotomentosus* Eppelsheim (monobasic); of *Aulacocypus*, *Ocypus gloriosus* Sharp = *Aulacocypus gloriosus* (Sharp) (designated here); of *Neotasgius*, *Ocypus brevicornis* Weise = *Neotasgius brevicornis* (Weise) (monobasic); of *Xanthocypus*, *Ocypus weisei* Harold = *Xanthocypus weisei* (Harold) (monobasic).

In addition to these the name *Trichoderma* Stephens has been listed as a subgenus of *Staphylinus*. Its type is *Staphylinus murinus* Linnaeus = *Trichoderma murinus* (Linnaeus) (designated by Westwood, 1838). (The designation of *nebulosus* Fabricius by des Gozis, 1886, is therefore invalid.) Since *murinus* is likewise the type of *Ontholestes* Ganglbauer, 1895 (designated by Tottenham, 1940), these two are isogenotypic. *Trichoderma*, being the oldest name, is to be used for the genus containing *murinus*.

It will be noted that the true genotype of *Staphylinus* is also the type of *Creophilus*. This means that the name *Staphylinus* should be applied only to *maxillosus* and its allies (now known as *Creophilus*) and that the genus including *erythropterus*, etc., must take a later name. Several names are available for this, but none later than *Ouchemus* des Gozis need be considered.

However, to most students of this family and to many other coleopterists, this transfer of the name *Staphylinus* to another genus, the suppression of *Creophilus*, and the introduction of a newer name for the large genus now considered the type of the family will seem to be an unnecessary change of established names. Rather than make this decision in the present paper, I am using *Creophilus* and *Staphylinus* in the sense of the Junk Catalog and leaving a final decision for a more propitious moment.

The only West Indian species of this genus is a widespread Central and South American species, which has apparently entered our region from both ends. It has been collected several times in Trinidad but has been reported from Cuba only once (Fauvel's record is merely a copy of DuVal's). The genus in its broad sense is readily recognized among our species by its size and dense pubescence and the dense punctation of the head and pronotum.

1. STAPHYLINUS ANTIQUUS Nordmann

Staphylinus antiquus NORDMANN, 1836, p. 35.—ERICHSON, 1839b, p. 373.—SAHLBERG, 1844, p. 788.—LUCAS, 1857, p. 50.—SHARP, 1876, pp. 150, 154, 155, 156; 1884 pp. 381, 382, 383, 385; 1887, p. 786.—FAUVEL, 1901, p. 85.—VILLADA, 1901, p. 29.—BERNHAUER and SCHUBERT, 1914, p. 375.—BERNHAUER, 1933, p. 44.

Ocypus cubae DUVAL, 1857, p. 36.—FAUVEL, 1863, p. 432.—LENG and MUTCHLER, 1914, p. 406.

Staphylinus cubae (DuVal) BERNHAUER and SCHUBERT, 1914, p. 377.—LENG and MUTCHLER, 1914, p. 406.)

Description.—Black with fuscous pubescence, abdomen opaque rufopiceous with apex rufocastaneous. *Head* with mandibles obtriangular, basal angles narrowly rounded; eyes at less than half their length from base; with moderately dense large umbilicate punctures, the intervals narrow but generally visible; with indistinct ground sculpture on the intervals. *Pronotum* as wide as long, quadrate, base rounded but with angles distinct; with punctation similar to that of head but without ground sculpture and leaving an irregular smooth midline posteriorly. *Elytra* very densely and finely punctate, the punctures not separately visible but forming a dense sculpture; very densely pubescent. *Abdomen* very finely and densely punctate and pubescent, with a transverse row on each segment of very large posteriorly directed setigerous punctures. *Male*, eighth sternite with a very feeble emargination six times as wide as deep, and with surface smooth around emargination. *Female*, eighth sternite rounded. Length, 10–17 mm.

Type locality.—Para (Brazil). Of *cubae*, Cuba.

Types.—Presumably in the Zoologische Museum, Berlin. Of *cubae*, presumably in the British Museum.

Records.—The following are the records known to me:

Cuba: (DuVal, 1857; Fauvel, 1863; Leng and Mutchler, 1914; as *cubae*).

Trinidad: (Birch and Bryant, in British Museum), Caparo (Blackwelder collection).

South America: BRAZIL (Nordmann, 1837; Sahlberg, 1844; Lucas, 1857), COLOMBIA, BRAZIL (Erichson, 1839b; Sharp, 1876), VENEZUELA, BRAZIL, PERU (Fauvel, 1891), COLOMBIA, PERU, BRAZIL (Fauvel, 1901).

Central America: NICARAGUA (Sharp, 1876), MEXICO, GUATEMALA, HONDURAS, NICARAGUA, PANAMA (Sharp, 1884), MEXICO (Fauvel, 1891, 1901; Villada, 1901).

Specimens examined.—I have seen four examples in the British Museum and one in my own collection.

Remarks.—I have been unable to find any differences between these West Indian specimens and examples of *antiquus* from Mexico and South America. Since DuVal's description of *Ocypus cubae* fits this species exactly, it seems probable that it also belongs here.

I find no record of the habits of this species.

LXVIII. Genus CREOPHILUS Samouelle

Creophilus SAMOUELLE, 1819, p. 172.
Creophulus VORIS, 1934, p. 240.

Genotype.—*Staphylinus maxillosus* Linnaeus=*Creophilus maxillosus* (Linnaeus) (original designation).

Diagnosis.—Head and pronotum without dense umbilicate punctures; head not margined beneath eyes; antennae widely separated at front of head, outer segments densely pubescent from seventh joint; labrum strongly emarginate at middle; fourth segment of maxillary palpus slightly shorter than third; labial palpus similar to maxillary; gular sutures separate, most approximate along middle; lateral margin of pronotum doubled, the marginal lines separate; anterior coxal cavities open behind except for a sclerotization about the spiracle (peritreme); front coxae large, exserted; posterior coxae contiguous, "triangular"; first and second abdominal sternites absent; intersegmental membranes of abdomen with a pattern of irregular rounded sclerotized areas arranged in longitudinal rows; femora unarmed beneath.

Remarks.—This is a small genus but contains the largest species of Staphylinidae found in the West Indies. It occurs throughout the world, but none of its species are truly cosmopolitan.

Only one species is recorded from the West Indies.

1. CREOPHILUS MAXILLOSUS (Linnaeus)

Staphylinus maxillosus LINNAEUS, 1758, p. 421.
Staphylinus anonymus SULZER, 1761, p. 17.
Staphylinus tertius SCHAEFFER, 1766, pl. 20, fig. 1.
Staphylinus balteatus DEGEER, 1774, p. 18 (as synonym).
Staphylinus fasciatus FUESSLY, 1775, p. 21.
Staphylinus nebulosus FOURCROY, 1785, p. 165.
Staphylinus villosus GRAVENHORST, 1802, p. 160. (Not DeGeer, 1774.)
Creophilus maxillosus (Linnaeus) SAMOUELLE, 1819, p. 172.
Emus nebulosus MANNERHEIM, 1830, p. 20.
Creophilus ciliaris STEPHENS, 1832, p. 202.
Creophilus fasciatus LAPORTE, 1834, p. 111 (as new species).
Creophilus villosus (Gravenhorst) LAPORTE, 1834, p. 111.
Emus maxillosus (Linnaeus) BOISDUVAL and LACORDAIRE, 1835, p. 358.
Staphylinus arcticus ERICHSON, 1839b, p. 348.

Staphylinus cinerarius ERICHSON, 1839b, p. 350.
Staphylinus ciliaris (Stephens) ERICHSON, 1842, p. 211.
Creophilus bicinctus MANNERHEIM, 1843, p. 229.
Staphylinus bicinctus MANNERHEIM, 1843, p. 229.
Emus villosus (Gravenhorst) MANNERHEIM, 1843, p. 229.
Staphylinus orientalis MOTSCHULSKY, 1857b, p. 67. (Not Bernhauer and Schubert, 1914.)
Creophilus orientalis (Motschulsky) MOTSCHULSKY, 1860b, p. 120.
Creophilus fulvago MOTSCHULSKY, 1860b, p. 120.
Creophilus arcticus (Erichson) MOTSCHULSKY, 1860b, p. 120.
Creophilus cinerarius (Erichson) KRAATZ, 1874, p. 291.
Creophilus imbecillus SHARP, 1874, p. 28.—KRAATZ, 1874, p. 291.
Creophilus medialis SHARP, 1874, p. 28.—KRAATZ, 1874, p. 291.
Creophilus subfasciatus SHARP, 1874, p. 28.—KRAATZ, 1874, p. 291.
Emus cinerarius (Erichson) FAUVEL, 1886, p. 50.
Creophilus balteatus (Degeer) HAMILTON, 1894, p. 19.
Creophilus pulchellus MEIER, 1899, p. 99.
Creophilus canariensis BERNHAUER, 1908b, p. 334.
Creophilus fasciatus (Fuessly) BERNHAUER and SCHUBERT, 1914, p. 398.
Creophilus nebulosus (Fourcroy) BERNHAUER and SCHUBERT, 1914, p. 398.
Creophilus anonymus (Sulzer) BERNHAUER and SCHUBERT, 1914, p. 398.
Creophilus ciliaroides HATCH, 1938, p. 149 (as aberration).

Description[19].—Black, pubescence frequently whitish and arranged in a definite pattern, forming a white band across the elytra and irregular areas at the sides of the fourth and fifth abdominal tergites. *Head* about three-eighths wider than long, sides evenly rounded from front angles into base, eyes not interrupting side outlines; vertex finely but deeply punctate, with minute irregular punctures between; without definite ground sculpture, but with a few large setigerous punctures behind the eyes and along margins. *Pronotum* about one-fifth wider than long, truncate in front, nearly semicircular behind, with posterior angles traceable; disk impunctate except for the minute punctulae as on head; with numerous setigerous punctures at anterior angles and along edges laterally. *Elytra* densely and rather finely punctate and densely pubescent; with a few much larger setigerous punctures arranged in a longitudinal discal series and a few submarginal individuals; surface coriaceous. *Abdomen* densely punctate and pubescent, with a few larger setigerous punctures; with indistinct transverse ground sculpture. *Male*, seventh sternite very feebly but not very widely emarginate; eighth with a rounded triangular emargination nearly twice as wide as deep; ninth sternite distinct. *Female*, seventh and eighth sternite rounded; ninth divided longitudinally into two sclerites. Length, 12 to 23 mm.

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[19] For a complete description of the structural characters, see Blackwelder, 1936.

Type locality.—"Europe."

Types.—Presumably in the Museum Uppsala.

Records.—The following are the records known to me:

Cuba: (Leng and Mutchler, 1914; Erichson, 1839b; Sharp, 1884).
Isle of Pines: (Holland, 1917).
Jamaica: Montego Bay (Blackwelder station 17), Kingston (Blackwelder station 434).
Central America: GUATEMALA (Sharp, 1884), MEXICO (Erichson, 1839b, as *villosus;* Sharp, 1884; Fauvel, 1875).
North America: Throughout the UNITED STATES, CANADA, LABRADOR, NEWFOUNDLAND, GREENLAND, and ALASKA.
Eurasia: KAMCHATKA, SIBERIA, EUROPE, ENGLAND, INDIA, JAPAN, SYRIA, PERSIA, CAUCASUS, AMUR, RUSSIA.
Africa: EGYPT, MADEIRAS. CANARIES, BARBARY COAST.

Specimens examined.—I have seen seven examples collected by me on July 20, 1935, and six collected by Chapin and Blackwelder on March 4,1937.

Remarks.—This species is immediately recognizable among all West Indian staphylinids, or, indeed, among staphylinids of the entire world, by its characteristic size, form, and coloring. It is reported to be "almost cosmopolitan" but seems to be entirely absent from South America, tropical Africa, Australia, and Oceania; in fact restricted to the regions north of latitude 15° N.

In a previous paper (Blackwelder, 1936) I treated the American representative under the name *villosus* without examining the validity of that name, which is better known to American entomologists. I now believe *villosus* to be a synonym of *maxillosus* in company with numerous other names, some of which have been considered to be varieties (subspecies).

Although specimens have so far been reported only from Cuba and Jamaica, I believe it likely that the species will be found also in Hispaniola and possibly in Puerto Rico. During my own collecting, carrion was not available for examination on those islands, and it is only in this situation that the species occurs normally.

Our 13 specimens were taken from beneath a dead hawk and a dead dog.

LXIX. Genus XANTHOPYGUS Kraatz

Xanthopygus KRAATZ, 1857, p. 539.
Lampropygus SHARP, 1884, p. 346.
Heteropygus BERNHAUER, 1906, p. 195.

Genotypes.—*Staphylinus xanthopygus* Nordmann=*Xanthopygus xanthopygus* (Nordmann) (by absolute tautonymy). Of *Lampropygus*, *Staphylinus xanthopygus* Nordmann=*Lampropygus xan-*

thopygus (Nordmann) (designated here); of *Heteropygus*, *Lampropygus* (*Heteropygus*) *giganteus* Bernhauer (monobasic).[20]

Diagnosis.—Head not densely umbilicately punctate, margined beneath the eyes; antennae widely separated at anterior margin of head, outer segments densely pubescent from the fourth joint; labrum bilobed; palpi slender, fourth segment of maxillary longer than third, labial similar to maxillary; gular sutures becoming very approximate posteriorly; pronotum with lateral margin double, upper line not extending around anterior angle and never united with lower; anterior coxal cavities open behind, except for a large peritreme; front coxae very large, exserted; posterior coxae contiguous, "triangular"; first and second abdominal sternites absent; intersegmental membranes of abdomen marked with a pattern of irregular rounded sclerotized areas arranged in longitudinal rows; femora not strongly spinose beneath.

Remarks.—This genus is to a certain extent given a new meaning by the return to it of *X. xanthopygus* which is its true genotype. That species is not before me at present, but *pexus* agrees with the published conceptions of the genus and has been used (with *X. cognatus* Sharp) in writing the diagnosis.

This genus is distinguished from *Philothalpus* (and *Xenopygus*) by the disappearance of the upper marginal pronotal line at the anterior angles. This group of genera is badly in need of a thorough revision, and when that is made the number of genera will probably be further reduced.

Nine West Indian examples of the genus have been seen. They belong to the following single species:

1. XANTHOPYGUS PEXUS (Motschulsky)

Belonuchus pexus MOTSCHULSKY, 1858, p. 667.—GEMMINGER and HAROLD, 1868, p. 596.

Lampropygus pexus (Motschulsky) BERNHAUER, 1906, p. 196.—BERNHAUER and SCHUBERT, 1914, p. 407.—LENG and MUTCHLER, 1914, p. 405.

Description.—Black, apex of abdomen rufotestaceous. *Head* nearly one-third wider than long; eyes not prominent, occupying not over one-half the sides; the posterior angles marked by a ridge; with very scattered punctures except along middle, more dense along base, feebly umbilicate; with very fine and irregular strigulose ground sculpture. *Pronotum* scarcely wider than long, widest at anterior third, almost emarginate to front angles, sinuately narrowed to unevenly rounded base; punctures similar to those of head at sides but with two irregular discal series of about 10 punctures; ground sculpture as on head. *Elytra* with moderately coarse and rather dense punctures separated by about their diameter; surface without ground sculpture, but uneven. *Abdomen* with moderate punctures strongly excavated behind, sometimes submuricate; surface alutaceous but without distinct ground sculpture. *Male*, eighth sternite feebly and broadly emarginate. *Female*, eighth sternite truncate. Length, 14 to 18 mm.

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[20] The above designation of *L. xanthopygus* as genotype of *Lampropygus* may seem to be arbitrary but is based on what I believe to be sound reasoning. In proposing the name *Lampropygus*, Sharp was in error because he included the previously established type of *Xanthopygus*. His name will therefore always be at least in part synonymous with *Xanthopygus*. Less confusion will result if the name *Lampropygus* is definitely and irrevocably rejected in this manner, and, if the other species included does prove to be distinct generically, a new name can be proposed for it that will have a more definite application and will not involve a change in the concept of an established genus.

Type locality.—Colombia.

Types.—Presumably in the Zoological University Museum, Moscow.

Records.—The following are the records known to me:

St. Vincent: (H. H. Smith, in British Museum).

Trinidad: (Bryant and Birch, in British Museum; Busck, in U.S.N.M.), Port of Spain (Marshall, in British Museum), Caparo (Blackwelder collection), Ariapito (Blackwelder collection), St. Augustine (Darlington, in M.C.Z. and U.S.N.M.), Mount Tucuche (Darlington, in M.C.Z.).

South America: COLOMBIA (Motschulsky, 1858), COLOMBIA, VENEZUELA, GUIANA, BRAZIL (Bernhauer and Schubert, 1914), COLOMBIA, BRAZIL (British Museum).

Specimens examined.—I have seen six examples in the British Museum, four from the Museum of Comparative Zoology, one in the United States National Museum, and two in my own collection. Specimens from South America also were examined in the British Museum.

Remarks.—The single example from St. Vincent is perhaps not sufficient evidence that this species has extended its range north of Trinidad, but I have no definite reason for doubting the record.

This species is distinguished from *cognatus* of Central America by its sparser and less coarse punctures on the head and pronotum, by its coarser elytral punctation, and by the pale abdominal apex extending only to the middle of the seventh tergite.

I find no record of its habits.

LXX. Genus PHILOTHALPUS Kraatz

Philothalpus KRAATZ, 1857, p. 540.
Philotalpus GEMMINGER and HAROLD, 1876, index (misspelling).
Subgenus *Xenopygus* BERNHAUER, 1906, p. 196.
Subgenus *Oligotergus* BIERIG, 1937, p. 204.

Genotypes.—*Staphylinus anceps* Erichson=*Philothalpus anceps* (Erichson) (designated here). Of *Xenopygus*, *Philonthus analis* Erichson=*Xenopygus analis* (Erichson) (designated here); of *Oligotergus*, *Philothalpus* (*Oligotergus*) *oculatus* Bierig (monobasic).

Diagnosis.—Head without dense umbilicate punctures, margined beneath the eyes; antennae widely separated at front of head, outer segments pubescent from fourth or fifth joint; labrum bilobed; palpi moderately long and slender, fourth segment of maxillary much longer than third, third segment of labial elongate, truncate, with apex sometimes compressed; gular sutures very approximate from middle; lateral margin of pronotum doubled, lines separate until around anterior angles; anterior coxal cavities entirely open behind; front coxae very large, exserted; posterior coxae contiguous, "triangular"; first and second abdominal sternites absent; intersegmental membranes of abdomen with pattern of irregular rounded sclerotized areas arranged in longitudinal rows; femora unarmed beneath.

Remarks.—This is a tropical American genus that apparently does not occur in the true West Indies. *Xenopygus* has always been placed some distance from this genus and apparently has never been compared with it. I am unable to find any character of generic importance to distinguish them, and I therefore reduce *Xenopygus* to the status of subgenus, although I am not certain that it can be retained even to that extent. It is distinguished by the complete lack of fine pubescence on the fourth antennal segment, by the more prominent subocular ridge, and by the uncompressed tip of the fourth segment of the maxillary palpus.

I have seen 20 examples from the West Indies. These belong to two species which belong to two subgenera as defined above.

KEY TO WEST INDIAN SPECIES OF PHILOTHALPUS

1. Pronotum with punctures evenly scattered except along midline_ 1. **fasciatus**
Pronotum with two distinct dorsal series outlining midline______ 2. **analis**

1. PHILOTHALPUS FASCIATUS (Nordmann)

Philonthus fasciatus Nordmann, 1836, p. 112.—Erichson, 1839b, p. 397.—Sharp, 1884, p. 355.

Staphylinus anceps Erichson, 1839b, p. 396.—Lacordaire, 1854, p. 78.

Staphylinus segmentarius Erichson, 1839b, p. 397.—Sharp, 1876, pp. 134, 136; 1884, p. 355.

Staphylinus fasciatus (Nordmann) Erichson, 1839b, p. 397.—Sharp, 1884, p. 355.

Philothalpus fasciatus (Nordmann) Kraatz, 1857a, p. 540.—Sharp, 1884, p. 355.—Bernhauer and Schubert, 1914, p. 402 (as variety).

Philothalpus segmentarius (Erichson) Kraatz, 1857a, p. 540.—Sharp, 1884, pp. 355, 356, 357.—Bernhauer and Schubert, 1914, p. 401 (as variety).

Philothalpus luteipes Sharp, 1876, pp. 133, 134.—Bernhauer and Schubert, 1914, p. 402 (as synonym of *segmentarius*).

Philothalpus anceps (Erichson) Bernhauer and Schubert, 1914, p. 402.—Plavilstschikov, 1929, p. 30.

Description.—Head and pronotum black, elytra rufopiceous to testaceous, abdomen piceous with apex of segments paler and an apical band formed by testaceous apex of seventh tergite and testaceous base of eighth. *Head* (including the eyes) nearly one-fourth wider than long; eyes prominent, occupying three-fourths of the sides; anterior part between eyes flattened; with scattered, coarse, indistinct umbilicate punctures except at center of vertex, dense behind eyes, sparse in front; surface with strong scaly ground sculpture throughout; pubescence long and conspicuous. *Pronotum* one-fifth longer than wide, widest at anterior fifth, scarcely narrowed to prominent anterior angles, sinuately narrowed to strongly rounded base; punctation, sculpture, and vestiture similar to those of head. *Elytra* with outer posterior angles completely rounded; densely and rather coarsely punctate, but without distinct ground sculpture. *Abdomen* with third to fifth sternites with an arcuate basal elevation; punctures irregular but generally fine and often submuricate; with very vague transverse ground sculpture. *Male*, eighth sternite with a small, rounded, triangular emargination. *Female*, sternites rounded. Length, 8 to 9 mm.

Type locality.—Mexico. Of *anceps*, Colombia; of *segmentarius*, Colombia.

Types.—Disposition not known. Of *anceps* and *segmentarius*, in either the Hope Museum, Oxford, or the Zoologische Museum, Berlin.

Records.—The following are the records known to me:

Trinidad: (Bryant, in British Museum), Caparo (Klages, in British Museum), Manzanilla (Blackwelder station 103A), Port of Spain (Blackwelder station 115).

South America: COLOMBIA (Erichson, 1839b, as *anceps* and *segmentarius;* Sharp, 1884; British Museum), VENEZUELA (British Museum), BRAZIL (Sharp, 1876, as *luteipes;* British Museum), PERU (Bernhauer and Schubert, 1914; Plavilstschikov, 1929), BRITISH GUIANA (British Museum).

Central America: PANAMA (British Museum), PANAMA and GUATEMALA (Sharp, 1884, as *segmentarius*), MEXICO (Nordmann, 1836; Erichson, 1839b, as *fasciatus;* Sharp, 1884, as *fasciatus*).

Specimens examined.—From the West Indies I have seen nine examples in the British Museum and two collected by me in December 1935.

Remarks.—The examples in the British Museum were separated under the names *anceps* and *segmentarius*, but I was unable to find any difference except color. A specimen of the dark form was borrowed and appears to be inseparable from the light form which I collected. This species belongs in the subgenus *Philothalpus* s.str.

Inasmuch as *fasciatus* is the older name, it cannot be used as a variety of *anceps*. I have, therefore, suppressed *anceps*, which may be considered to be a subspecies or variety by some workers. However, *fasciatus* must be the valid species.

My specimens were found in freshly cut cocoa pods and flying at dusk.

2. PHILOTHALPUS ANALIS (Erichson)

Philonthus analis ERICHSON, 1840, p. 495.—LUCAS, 1857, p. 50.—SHARP, 1876, pp. 132, 136; 1884, p. 348. (Not Heer, 1838–42; not Fauvel, 1907.)

Xanthopygus analis (Erichson) KRAATZ, 1857a, p. 540.—SHARP, 1876, p. 132.—BERNHAUER, 1906, p. 196.

Lampropygus analis (Erichson) SHARP, 1884, pp. 347, 348.—BERNHAUER, 1906, p. 196.

Xenopygus analis (Erichson) BERNHAUER, 1910, p. 377.—BERNHAUER and SCHUBERT, 1914, p. 405.—SALT, 1929, pp. 450, 464.—SCHEERPELTZ, 1933, p. 1416.—BALDUF, 1935, p. 82.

Description.—Head greenish, pronotum black with greenish tinge, elytra piceous, abdomen piceous with last two segments rufotestaceous. *Head* (including eyes) one-fourth wider than long; eyes only slightly prominent, occupying two-thirds of the sides; anterior part not distinctly flattened; with scattered punctures except on vertex, punctures indistinctly umbilicate; with fine but distinct scaly ground sculpture interspersed with fine punctulae. *Pronotum* scarcely longer than wide, widest at anterior third, moderately narrowed to anterior angles, sinuately narrowed to strongly rounded base; with two indefinite series of large punctures along midline, of eight to nine punctures, with a lateral series of seven or eight and scattered additional punctures; ground sculpture finer than on head; vestiture nearly absent. *Elytra* conjointly widely emarginate, outer angles not evenly rounded; densely and coarsely punctate, but without distinct ground sculpture. *Abdomen* with sternites 3 to 5 with an angulate basal elevation; punctures sparse but fine and submuricate; with very vague transverse ground sculpture. *Male*, seventh sternite with a median longitudinal pubescent oval fovea, posteriorly very slightly and broadly emarginate; eighth sternite with a triangular notch a little wider than deep. *Female*, sternites rounded. Length, 11 to 14 mm.

Type locality.—"Cayenne . . . ; Colombia."

Types.—Either in the Hope Museum, Oxford, or the Zoologische Museum, Berlin.

Records.—The following are the records known to me:

Trinidad: Caparo (Blackwelder collection), Ariapita Valley (Blackwelder collection), Arima (Kisliuk and Cooley, in U.S.N.M.), Manzanilla (Blackwelder station 103A), Mount Tucuche (Darlington, in M.C.Z. and U.S.N.M.).

South America: (Sharp, 1884), COLOMBIA, FRENCH GUIANA (Erichson, 1840), BRAZIL (Sharp, 1876; British Museum), BRAZIL, PERU, GUIANA, VENEZUELA (Bernhauer and Schubert, 1914), ARGENTINA, PERU (Scheerpeltz, 1933), BOLIVIA (Costella, Lopez, and Mann, in U.S.N.M.).

Central America: MEXICO, GUATEMALA, PANAMA (Sharp, 1884; British Museum; Bernhauer and Schubert, 1914), MEXICO, PANAMA (Blackwelder collection).

Specimens examined.—I have seen from the West Indies one example in the United States National Museum, three from the Museum of Comparative Zoology, two in my own collection, and two collected by me in 1935–37. In addition I have seen numerous specimens from Central and South America.

Remarks.—The above description was taken from a Trinidad example collected in 1935. Several series from South and Central America indicate that the species is much more variable than the Trinidad examples indicate. The elytra are frequently greenish, and the entire green surface may be somewhat metallic. The punctures in the pronotal series are very variable, numbering from 7 to 10. Immature specimens (from Bolivia) are dark rufous throughout except for the greenish head and the testaceous abdominal apex. This species belongs in the subgenus *Xenopygus* as defined above.

My examples were collected from freshly cut cocoa pods.

LXXI. Genus DIOCHUS Erichson

Diochus ERICHSON, 1839b, p. 300.
Rhegmatocerus MOTSCHULSKY, 1858, p. 657.

Genotype.—*Diochus nanus* Erichson (monobasic). Of *Rhegmatocerus*, *R. punctipennis* Motschulsky (designated here).

Diagnosis.—Head and pronotum without dense umbilicate punctation; head not margined beneath the eyes; antennae moderately well separated at anterior margin of head, outer segments densely pubescent; labrum large, suborbicular; third segment of maxillary palpus large, acicular; gular sutures separate, converging toward base; pronotum with side margin double, the lines separate throughout; anterior coxal cavities open behind; front coxae large, exserted; posterior coxae contiguous, "triangular"; first and second abdominal sternites absent; intersegmental membranes of abdomen with a pattern of irregular rounded sclerotized areas arranged in longitudinal rows; femora unarmed beneath.

Remarks.—This genus has generally been placed in the Xantholinini, but I am unable to reconcile many of its characters with those of the true xantholinines. The front of the head is entirely different from *Xantholinus*, the gular sutures are not united, the elytral suture is not beveled; the pattern of the intersegmental membranes of the abdomen is different, and the males are clearly different from the females by the usual modifications of the seventh and eighth sternites.

Six species have been recorded from the West Indies, but I am unable to distinguish them. I have seen 244 examples from the West Indies, including the types of four of the names. I believe all are one species.

1. DIOCHUS NANUS Erichson

Diochus nanus ERICHSON, 1839b, p. 301.—DUPONCHEL, 1841, p. 57.—LACORDAIRE, 1854, p. 65.—CHEVROLAT and FAUVEL, 1863, p. 430.—LYNCH, 1884, p. 172.—SHARP, 1885, pp. 466, 467.—FAUVEL, 1891, p. 106.—EICHELBAUM, 1909, p. 161.—BLATCHLEY, 1910, p. 400.—BERNHAUER and SCHUBERT, 1914, p. 319.—LENG and MUTCHLER, 1914, p. 406.—CAMERON, 1922, pp. 116, 117.—BERNHAUER, 1929, p. 193.

Diochus schaumi Kraatz, 1860, p. 27.—Sharp, 1885, p. 467.—Casey, 1906, pp. 431, 432, 433.
Diochus parvulus Kraatz, 1860, p. 27.
Diochus longicornis Sharp, 1876, pp. 184, 185; 1887, p. 791.
Diochus vicinus Sharp, 1876, p. 185.
Diochus tarsalis Sharp, 1876, p. 185.
Diochus flavicans Sharp, 1876, p. 185.
Diochus inornatus Sharp, 1885, p. 466
Diochus vilis Sharp, 1885, p. 467.
Diochus maculicollis Fauvel, 1891, p. 106.
Diochus brevipennis Casey, 1906, pp. 431, 432.
Diochus thoracicus Casey, 1906, p. 432.
Diochus pallidiceps Casey, 1906, p. 432.
Rhegmatocerus conicicollis Eichelbaum, 1909, p. 161.
Diochus perplexus Cameron, 1922, p. 116.
Diochus apicipennis Cameron, 1922, p. 116.
Diochus antennalis Cameron, 1922, p. 117.—Bernhauer, 1929, p. 193.
Diochus pumilio Bernhauer, 1929, p. 193.

Description.—Piceous to rufopiceous, margins sometimes paler, abdomen sometimes piceocastaneous. *Head* very small, one-sixth longer than wide, sides arcuate behind eyes and evenly rounded into base; clypeus a little produced between base of antennae but only as a broad flat surface; with a few scattered punctures except along middle posteriorly; with very indefinite and indistinct ground sculpture. *Pronotum* one-sixth wider than head, two-sevenths longer than wide, oval, without trace of angles; with two discal pairs of punctures behind middle, a discal pair more widely separated in anterior half, and an irregular lateral series of three or four on each side; without ground sculpture. *Elytra* three-sevenths wider than pronotum; not distinctly punctate except for two discal rows, one sutural and one post-humeral, of four to seven submuricate punctures; surface uneven, feebly radially grooved near scutellum. *Abdomen* densely and very finely punctate, with a few larger submuricate punctures and rather indefinite ground sculpture. *Male*, seventh sternite feebly emarginate in median fourth, eighth with a narrow rounded but very shallow emargination more distinct from behind than from beneath. *Female*, seventh sternite not emarginate, eighth broadly rounded. Length, 2½ to 3½ mm.

Type locality.—"In variis Americae meridionalis regionibus, e Columbia . . ." Of *schaumi*, "Louisiana . . . Georgia"; of *parvulus*, Bahia, (Brazil); of *longicornis*, Tapajos, Brazil; of *vicinus*, Tapajos, Brazil; of *tarsalis*, Tapajos, Brazil; of *flavicans*, Tapajos, Brazil; of *inornatus*, "Nicaragua . . . , Panama . . . "; of *vilis*, "Guatemala, near the city"; of *maculicollis*, "Caracas, Colonie Tovar," Venezuela; of *brevipennis*, St. Louis, Mo.; of *thoracicus*, Long Island, N. Y.; of *pallidiceps*, Austin, Tex.; of *perplexus*, Mount Gay Estate, Grenada; of *apicipennis*, St. Vincent; of *antennalis*, Grenada; of *pumilio*, Veracruz, Mexico.

Types.—Either in the Hope Museum, Oxford, or the Zoologische Museum, Berlin. Of *schaumi* and *parvulus* in the Deutsche Entomologische Institut; of *longicornis*, *vicinus*, *tarsalis*, *flavicans*, *inornatus*, *vilis*, *perplexus*, and *apicipennis*, in the British Museum; of *maculicollis*, in the collection of Blanche Rancin, Caën, France; of *brevipennis*, *thoracicus*, and *pallidiceps*, in the Casey collection in the United States National Museum; of *pumilio*, in collection of Max Bernhauer; of *antennalis*, not recorded but in either the collection of Malcolm Cameron or the British Museum.

Records.—The following are the records known to me:

Cuba: Cayamas (Schwarz, in U.S.N.M.), Aspiro (Bierig, in Blackwelder collection), Soledad (Darlington, in M.C.Z. and U.S.N.M.).

Jamaica: (Hubbard, in U.S.N.M.; Cameron collection), Spanish Town (Blackwelder station 377), Milk River (Blackwelder station 415), Santa Cruz (Blackwelder station 421), Trinityville (Blackwelder station 428), Kingston (Darlington, in M.C.Z.).

Hispaniola: DOMINICAN REPUBLIC, Sánchez (Darlington, in M.C.Z. and U.S.N.M.), Puerto Plata (Darlington, in M.C.Z.), Villa Altagracia (Darlington, in M.C.Z.).

Puerto Rico: Maricao (Blackwelder station 47A).

St. Croix: (Blackwelder stations 341, 344).

Guadeloupe: Basse Terre (Blackwelder station 79C).

St. Lucia: (Blackwelder stations 207C, 209A, 211A, 444B).

Barbados: (Blackwelder stations 193A, 202A).

St. Vincent: (Cameron, 1922a; British Museum).

Grenadines: Mustique (British Museum; Cameron collection).

Grenada: (Cameron, 1922a; British Museum; Cameron collection).

Trinidad: Tacarigua (Blackwelder station 107C), foothills north of Tunapuna (Weber, in M.C.Z. and U.S.N.M.), St. Augustine (Weber, in M.C.Z. and U.S.N.M.), base of Galeota Point (Weber, in M.C.Z. and U.S.N.M.), 11 miles north of Arima (Weber, in M.C.Z. and U.S.N.M.).

South America: (Erichson, 1839), BRAZIL (Sharp, 1876, as *longicornis*, *vicinus*, *tarsalis*, and *flavicans;* Kraatz, 1860), COLOMBIA (Erichson, 1839b; Sharp, 1885), ARGENTINA (Lynch, 1884), VENEZUELA (Fauvel, 1891).

Central America: GUATEMALA, PANAMA, NICARAGUA (Sharp, 1885, as *nanus*, *inornatus*, *schaumi*, and *vilis*), MEXICO (Bernhauer, 1929).

North America: LOUISIANA (Kraatz, 1860; Sharp, 1885), RHODE ISLAND, VIRGINIA, NORTH CAROLINA, NEW YORK, MISSOURI, TEXAS (Casey, 1906, as *pallidiceps*), MICHIGAN, FLORIDA, OHIO, MASSACHUSETTS, MISSISSIPPI (U.S.N.M.).

Specimens examined.—I have seen 165 examples in the British Museum (including types of Dr. Cameron's species), 27 in Dr. Cameron's collection, 28 from the Museum of Comparative Zoology, 4 in the United States National Museum, 1 from Sr. Bierig in my own collection, and 49 collected by me during 1935-37. In addition to these I have examined the types of Casey's species and good series of North American specimens.

Remarks.—My examination of examples of *nanus*, *schaumi*, *perplexus*, *apicipennis*, and *antennalis* in the British Museum and in Dr. Cameron's collection left me unable to distinguish any of the five or to separate my own specimens from any of them. A similar experience was had with the three Casey species. Examination of the characters used to separate these has shown that they are variable characters and apparently not of specific value. I can only conclude that the names are synonymous. In addition to these species of which I have seen examples, a careful examination of the other described American species (except *formicetorum* Bernhauer) shows that the same characters have been used in every case, and no variations are recorded which are not included in the series at hand. I am forced to conclude that they too are synonyms, and I feel that the evidence is strong enough to justify placing the names in the formal synonymy.

My specimens were collected from among decomposing trash in canefields, from under dung, rotting fruit, moss, and stones along edge of streams, and flying at dusk.

LXXII. Genus CEPHALOXYNUM Bernhauer

Cephaloxynum BERNHAUER, 1907, p. 282.
Subgenus *Ponticulus* BIERIG, 1931, p. 424.

Genotype.—*C. gestroi* Bernhauer (monobasic). Of *Ponticulus*, *Cephaloxynum* (*Ponticulus*) *rambouseki* Bierig (original designation and monobasic).

Diagnosis.—Form slender, depressed; head and pronotum without dense umbilicate punctures; head not margined beneath or behind the eyes; antennae widely separated at anterior margin of head, outer segments pubescent from the fourth joint; labrum bilobed (though separated from the clypeus by a smooth area that might be mistaken for the labrum itself); fourth segment of maxillary palpus shorter and much more slender than the third; labial palpus similar to maxillary; gular sutures united, at least basally; lateral margin of pronotum doubled, the lines not clearly united anteriorly; anterior coxal cavities open behind; front coxae very large, exserted; posterior coxae contiguous, "triangular"; first and second abdominal sternites absent; femora unarmed beneath; tarsi 5-segmented.

Remarks.—This genus was described in the Piestinae, but I can see no reason for regarding it as anything but a true staphylinine, especially since the redefinition of the Piestinae. I have assumed that Sr. Bierig's species from Cuba is actually a *Cephaloxynum*, since the genus is not otherwise available to me in identified material. I consider that *Ponticulus* cannot be maintained even as a subgenus on the basis of the characters given by Bierig, and his figures and description leave little doubt that *rambouseki* is congeneric with *tricolor*. If *tricolor* is properly assigned to *Cephaloxynum*, then this transfer to the Staphylininae is valid. If not, then the genus here treated would take the name *Ponticulus*.

I have seen four specimens from the West Indies representing two species of which one is new.

KEY TO WEST INDIAN SPECIES OF CEPHALOXYNUM

1. Head with two deep foveae on vertex---------------------- 2. rambouseki
   Head without foveae on vertex------------------------------------ 1. chapini

1. CEPHALOXYNUM CHAPINI, new species

Description.—Head rufopiceous, pronotum and abdomen rufotestaceous, elytra fuscotestaceous. *Head* quadrate, one-tenth longer than wide; with coarse and distinctly umbilicate punctures scattered evenly except along middle, generally separated by more than their diameter; surface with fine but distinct scaly ground sculpture throughout. *Pronotum* one-ninth longer than wide, front angles broadly rounded, sides straight posteriorly and moderately narrowed, hind angles distinct; more finely punctate than head, but evenly except for smooth median space; with scaly ground sculpture finer than on head. *Elytra* moderately densely but feebly punctured; surface shining but slightly uneven. *Abdomen* sparsely and finely submuricately punctured; with indistinct transverse strigulae. Length, 2½ mm.

Type locality.—Jamaica, between Fern Gully and Ewarton in vicinity of Moneague.

Types.—Holotype, in the United States National Museum (No. 52456) collected by Chapin and Blackwelder on February 2, 1937.

Records.—The following is the only record known to me:

Jamaica: Moneague (Blackwelder station 375).

Specimens examined.—I have seen only the unique type.

Remarks.—This species is very distinct by its even head without ridges or depressions. The shape of the pronotum is also distinctive, as well as the even arrangement of the pronotal punctures.

The type was taken flying at dusk.

2. CEPHALOXYNUM RAMBOUSEKI Bierig

Cephaloxynum rambouseki BIERIG, 1931, p. 424.—SCHEERPELTZ, 1933, p. 995.—BIERIG, 1937, p. 273.

Description.—Testaceous, head picescent especially about the eyes, elytra piceous except indefinitely at base, fourth and fifth visible abdominal segments piceous. *Head* quadrate, as broad as long; with a deep circular fovea on each side of midline at center of vertex, smooth midline feebly but broadly elevated toward front; with coarse punctures separated by about half their diameters; with very vague strigulose ground sculpture. *Pronotum* as broad as long, front angles not rounded, sides gradually curved into rounded base; without distinct punctures; ground sculpture as on head. *Elytra* with punctures rather dense but obsolescent, very shallow; with scarcely a trace of ground sculpture. *Abdomen* with sparse and fine indistinct submuricate punctures; without distinct ground sculpture. Length, 2 to $2\frac{5}{6}$ mm.

Type locality.--Cuba, Tapaste, Sierra Bonilla.

Types.—Type, February 29, 1930, and one paratype from Rangel, Sierra del Rosario, Cuba, February 9, 1930, in the collection of Alexander Bierig, Habana, Cuba. [In 1937 Bierig recorded also one "hypotype" in his collection. An example sent to the United States National Museum in 1938 (No. 52698) is labelled "cotype" but apparently is not more than a hypotype.]

Records.—The following are the records known to me:

Cuba: Tapaste in the Sierra Bonilla (Bierig, 1931), Rangel in the Sierra del Rosario (Bierig, 1931), Camoa in the province of Habana (Bierig, in U.S.N.M.), Buenos Aires in the Trinidad Mountains (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the one "cotype" in the United States National Museum and two specimens from the Museum of Comparative Zoology.

Remarks.—This species is very distinct because of the foveate vertex as well as by the impunctate pronotum. The color pattern is likewise unique in our fauna.

The types were found under bark of fallen logs.

LXXIII. Genus HOLISUS Erichson

Holisus ERICHSON, 1839b, p. 298.
Piestomorphus MOTSCHULSKY, 1858, p. 666.
Hyptioma CASEY, 1906, p. 359, 362.

Genotype.—*H. analis* Erichson (designated by Duponchel, 1841). Of *Piestomorphus*, *P. ater* Motschulsky (monobasic); of *Hyptioma*, *H. cubensis* Casey (monobasic).

Diagnosis.—Form very much depressed; head and pronotum without dense umbilicate punctures; head not margined beneath or behind the eyes; antennae widely separated at anterior margin of head, outer segments pubescent from the fourth joint; labrum bilobed; fourth segment of maxillary palpus shorter and much more slender than the third; labial palpus similar to maxillary; gular sutures united; lateral margin of pronotum tripled, the lines united anteriorly; anterior coxal cavities partly closed by a pair of sclerites behind the spiracles; front coxae very large, exserted; posterior coxae contiguous, "triangular"; first and second abdominal sternites absent; intersegmental membranes with a pattern of irregular rounded sclerotized areas arranged in longitudinal rows; femora unarmed beneath; tarsi 5-segmented.

Remarks.—This genus is restricted to the Western Hemisphere, where it is represented by a considerable number of species, each being generally very rare in collections. It was described as a xantholinid but seems to be a normal member of the true Stayphylinini.

The two West Indian species described by Erichson have been cataloged as occurring only in South America and have therefore been overlooked by students of the West Indies fauna. They were described from St. John and St. Vincent without mention of any South American localities. I believe I have recognized them both in the present series.

I have seen 26 examples of this genus from the West Indies. These belong to three species of which one is new.

KEY TO WEST INDIAN SPECIES OF HOLISUS

1. Labium carinate-- 2
   Labium not carinate-- 1. debilis
2. Black throughout, except for luster------------------------------- 3. laevis
   In great part rufous or testaceous-------------------------------- 2. guildingii

1. HOLISUS DEBILIS Erichson

Holisus debilis Erichson, 1839b, p. 300.—Lacordaire, 1854, p. 65.—Bernhauer and Schubert, 1914, p. 321.

Hyptioma cubensis Casey, 1906, p. 362.—Eichelbaum, 1909, p. 162.—Casey, 1910, p. 106.—Bernhauer and Schubert, 1914, p. 320.—Scheerpeltz, 1933, p. 1326.

Holisus cubensis (Casey) Casey, 1910, p. 106.—Leng and Mutchler, 1914, p. 406.—Scheerpeltz, 1933, p. 1324.

Holisus rufoniger Cameron, 1922, p. 117.—Scheerpeltz, 1933, p. 1326.

Holisus erythroderus Fauvel, MS—Cameron, 1922, p. 117.

Description.—Head piceous or rufopiceous, pronotum, elytra, and abdomen rufous or rufotestaceous, elytra more or less infuscate especially apically. *Head* quadrate, as wide as long; with coarse and indistinct umbilicate punctures evenly scattered and generally separated by about their diameter, in front arranged in denser series to outline a Y-shaped elevation; surface with distinct longitudinal strigulae. *Pronotum* suborbiculate, the sides nearly straight but hind angles not at all prominent; with coarse punctures scattered over surface except along middle, very little denser posteriorly; surface with distinct diagonal strigulae throughout. *Elytra* rather finely and densely punctate, the surface shining but feebly coriaceous. *Abdomen* sparsely and moderately finely submuricately punctate; with indistinct transverse strigulae. Length, 3 to 4½ mm.

Type locality.—St. John. Of *rufoniger*, Haiti; of *cubensis*, Habana, Cuba.

Types.—In either the Hope Museum, Oxford, or the Zoologische Museum, Berlin. Of *rufoniger*, in collection of Dr. Cameron; of *cubensis*, in Casey collection, U.S.N.M. No. 48241.

Records.—The following are the records known to me:

Bahamas: Watling Island (Greenway, in M.C.Z.).
Cuba: (Casey, 1906; Leng and Mutchler, 1914), Soledad (Darlington, in M.C.Z. and U.S.N.M.).
Hispaniola: HAITI (Cameron, 1922).
Puerto Rico: El Yunque (Blackwelder station 351A).
St. John: (Erichson, 1839b; Lacordaire, 1854).
St. Lucia: (Blackwelder stations 220F, 227).
St. Vincent: (Cameron, 1922; British Museum).
(South America: (Bernhauer and Schubert, 1914).)

Specimens examined.—I have seen eight examples collected by me in 1935–37, three from the Museum of Comparative Zoology, and one in the British Museum, beside the three types of *cubensis* in the United States National Museum. I have not examined the type in Dr. Cameron's collection.

Remarks.—This is a rather variable species in details of color and punctation, but I am not able to find characters that will divide it at all satisfactorily.

The Erichson species was certainly unknown to Col. Casey when he described *cubensis*, and it was probably unknown to Dr. Cameron when he described *rufoniger*. I have directly compared the type of *cubensis* with specimens from the other islands, but of *rufoniger* I have made only a brief examination. I believe there is little doubt that they are all the same species.

The record of South America by Bernhauer and Schubert, 1914, is almost certainly an error, since they make no mention of the type locality.

My specimens were collected from decaying cocoa pods, from under chips and frass on stumps, and flying at dusk.

2. HOLISUS GUILDINGII Erichson

Holisus guildingii ERECHSON, 1839b, p.300.—LACORDAIRE, 1854, p. 65.—BERNHAUER and SCHUBERT, 1914, p. 322.

Description.—Head black to rufopiceous, pronotum and abdomen rufous or rufotestaceous, elytra testaceous; pronotum with aeneous luster. *Head* quadrate, as wide as long, sides arcuate; with distinctly elongate umbilicate punctures fairly evenly scattered and not very distinctly marking ridges in front, leaving a smooth midline; surface with fine but dense longitudinal strigulae. *Pronotum* suborbiculate but with basal angles slightly prominent; with coarse punctures more or less serially limiting the smooth midline and scattered laterally, more sparsely in front; with strigulae generally diagonal. *Elytra* moderately densely and feebly punctate; surface shining but slightly uneven. *Abdomen* sparsely and moderately finely submuricately punctate; with indistinct transverse strigulae. Length, 3½ to 5½ mm.

Type locality.—St. Vincent.

Types.—Presumably in the Hope Museum, Oxford.

Records.—The following are the records known to me:

Puerto Rico: El Yunque (Blackwelder 351A), Mayagüez (Blackwelder station 358B).
Antigua: (H. E. Box, as Blackwelder station 444Q).
St. Lucia: (Blackwelder station 227).
St. Vincent: (Erichson, 1839b); Lacordaire, 1854).
[**South America:** (Bernhauer and Schubert, 1914).]

Specimens examined.—I have seen only the nine examples collected by me in 1935–37.

Remarks.—This species also is variable in details of the arrangement of punctures and ridges on the head but seems to be distinct from *debilis* by the elongation of the punctures of the head, by the sparse and coarse pronotal punctures, and by the prominence of the hind angles of the pronotum.

The record of South America by Bernhauer and Schubert is almost certainly an error since they do not cite the type locality.

These specimens were collected from rotting cocoa pods, from under chips and frass on stumps, from under bark, and "from inside of scarlet bracts of a large unknown species of *Heliconia*" (H. E. Box).

3. HOLISUS LAEVIS, new species

Description.—Black, with aeneous luster. *Head* quadrate, as wide as long; with coarse punctures arranged in an indefinite semicircle back of the bases of the antennae and two confused bands converging toward the neck, with two punctures on the frontal region and scattered punctures at the sides behind the eyes; surface finely but distinctly longitudinally strigulate throughout. *Pronotum* suborbicular, anterior angles broadly rounded, sides not emarginate posteriorly but posterior angles traceable; with a median smooth space, and scattered punctures laterally, more or less in two series in front; surface strigulose, longitudinally behind but diagonally in front. *Elytra* moderately coarsely and densely punctate, the punctures obscured by fine radiating wrinkles, but surface shining. *Abdomen* with sparse punctures greatly excavated behind; surface transversely strigulate. Length, 6 mm.

Type locality.—Jamaica, 1 mile east of Bath in parish of St. Thomas. Thomas.

Types.—Holotype, in the United States National Museum (No. 52455), collected by Chapin and Blackwelder on February 8, 1937.

Records.—The following are the records known to me:

Cuba: Mountains north of Imias, Oriente (Darlington, in M.C.Z.).
Jamaica: Bath in St. Thomas (Blackwelder station 392B).

Specimens examined.—I have seen only the type and one example from the Museum of Comparative Zoology.

Remarks.—This species is distinguished by its quadrate head, its coarse and sparse pronotal punctures, and its uniform black color. I am unable to distinguish the Cuban example from the type. It was taken at an elevation of 3,000 to 4,000 feet.

A species very similar to this occurs in Central and South America. It may differ in details of sculpture or may be the same species. I am unable to determine the range of variation of the West Indian species so cannot state definitely whether they are the same or not.

The type was found under bark of a silk cotton tree.

LXXIV. Genus HETEROTHOPS Stephens

Heterothops Stephens, 1829, p. 284.
Trichopygus Nordmann, 1836, p. 137.
Heterotops Nordmann, 1836, p. 137 (misspelling).

Genotypes.—*Staphylinus binotatus* Gravenhorst=*Heterothops binotatus* (Gravenhorst) (designated here). Of *Trichopygus*, *Tachyporus dissimilis* Gravenhorst=*Trichopygus dissimilis* (Gravenhorst) (designated by Tottenham, 1939).

Diagnosis.—Head and pronotum without dense umbilicate punctures, more or less margined beneath the eyes; antennae widely separated at front of head, not geniculate nor serrate, outer segments densely pubescent from third or fourth segment; labrum transverse; mouthparts short; palpi subulate, fourth segment of maxillary shorter than third, third segment of labial slender; gular sutures separate; lateral margin of pronotum simple; anterior coxal cavities entirely open behind; front coxae large, exserted; posterior coxae contiguous, with a small expansion over the base of femur; first and second abdominal sternites absent; femora unarmed; tarsi all 5-segmented.

Remarks.—This is a moderate-sized genus occurring throughout the world but generally with rather limited specific ranges. It is distinguished principally by the structure of the mouthparts, but in the West Indies may be known among Quediinae by its 5-segmented tarsi or the short palpi.

Two new species are all that are known to me from the West Indies.

KEY TO WEST INDIAN SPECIES OF HETEROTHOPS

1. Eyes at more than their length from base________________ 1. **rambouseki**
   Eyes at much less than their length from base________________ 2. **ocularis**

1. HETEROTHOPS RAMBOUSEKI, new species

Heterothops liliputanus Rambousek, MS.

Description.—Head and tip of abdomen piceous, rest testaceous or rufescent. *Head* elongate, widest posteriorly; eyes at nearly three times their length from base; not punctate except at the sides; with very indistinct ground sculpture. *Pronotum* scarcely wider than long, broadly rounded behind, somewhat arcuately narrowed in front; with a single pair of discal punctures just before middle; with ground sculpture as on head. *Elytra* with rather fine submuricate punctures separated by two or three times their diameter; with rather distinct transverse strigulose ground sculpture. *Abdomen* with punctation finer than on elytra and denser posteriorly; ground sculpture indistinct. Length, 1¼ to 2 mm.

Type locality.—Cuba, district of Jamaica, province of Habana.

Types.—Holotype in collection of Dr. Cameron, collected on October 5, 1928, by Dr. Rambousek; and two paratypes in United States National Museum (No. 52476). (The type was labeled paratype of *H. liliputanus* by Dr. Rambousek, in whose collection there are undoubtedly additional examples.)

Records.—The following are the records known to me:

Cuba: Habana (Rambousek, in Cameron and Rambousek collections), Cayamas (Schwarz, in U.S.N.M.).
Jamaica: Bath in St. Thomas (Blackwelder station 387A).

Specimens examined.—I have seen only three specimens of which the two in the United States National Museum are in very poor condition. The example in the Cameron collection was borrowed for study and is herein designated as the holotype.

Remarks.—This species is readily recognized by the size of the eyes, as well as by the length of the body which is distinctly less than that of *ocularis.*

My specimen was taken from fungus (a species of *Hydnum*).

2. HETEROTHOPS OCULARIS, new species

Description.—Head and pronotum piceous, elytra and abdomen castaneous (sometimes picescent). *Head* suborbicular, as broad as long; eyes very large, occupying more than half the length; with marginal punctures only; with vague traces of ground sculpture. *Pronotum* one-seventh wider than long, broadly rounded behind, somewhat arcuately narrowed in front; with a single pair of discal punctures at apical third; with traces of ground sculpture as on head. *Elytra* with fine submuricate punctures separated by one to two times their diameter; without distinct ground sculpture. *Abdomen* with punctures as on elytra but more distinctly muricate; at most with traces of ground sculpture. *Male*, eighth sternite with a small emargination three times as wide as deep. *Female*, eighth sternite rounded. Length, 2½ to 3½ mm.

Type locality.—Trinidad, mouth of cave in Aripo Valley; elevation 2,600 feet.

Types.—Holotype and one paratype (females) in the Museum of Comparative Zoology; one paratype (male) in the United States National Museum (No. 52530); collected April 19, 1935, by N. A. Weber.

Records.—The following is the only record known to me:

Trinidad: Aripo Valley (Weber, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the three types.

Remarks.—This species is at once distinguished from *H. rambouseki* by the very large eyes which occupy most of the sides of the head. This development also forces the infraocular ridge onto the ventral surface of the head. In details of sculpture and in appearance the two species differ little.

The types were found at the mouth of a cave, but I have received no other record of their habits.

LXXV. Genus ACYLOPHORUS Nordmann

Acylophorus Nordmann, 1836, p. 127.
Rhygmacera Motschulsky, 1845, p. 40.
Rhegmacera Fauvel, 1895, p. 275 (misspelling).

Genotype.—*A. ahrensii* Nordmann (designated here); the citation as type of *A. glaberrimus* (Herbst) by Bierig in 1938 can be recognized only through the synonymy of *ahrensii* and *glaberrimus*. Of *Rhygmacera*, *R. nitida* Motschulsky (monobasic).

Diagnosis.—Head and pronotum without dense and umbilicate punctures, margined beneath the eyes; antennae widely separated at front of head, strongly geniculate at the first joint, segments densely pubescent from the third joint; labrum transverse but rounded, with a few long setae; mouth-parts not very long or very slender, fourth segment of maxillary palpus enlarged and either truncate or acuminate, labial palpus with second and third segments much enlarged and flattened, forming a distinct club; gular sutures separate but approximate near base; lateral margin of pronotum single; anterior coxal cavities open behind; front coxae large, exserted; posterior coxae contiguous, "triangular," with a small expansion over the base of the femur; first and second abdominal sternites absent, except for a remnant of the second at the side; femora unarmed; all tarsi 5-segmented; the sexes usually not externally distinguished.

Remarks.—This rather small genus is found in most parts of the world but the species are usually not widespread. It is distinguished from *Heterothops* principally by the structure of the mouthparts.

Two species described from Cuba are not available to me. Four others that appear to be new are described below. I have seen 20 examples from the West Indies.

KEY TO WEST INDIAN SPECIES OF ACYLOPHORUS

1. Species described by Bierig from Cuba -- 2
   Species described here from Hispaniola and Trinidad ------------------------ 3
2. Abdomen with distinct aeneous luster ---------------------------- **4. hatuey**
   Abdomen without distinct aeneous luster ----------------------- **2. insulanus**
3. Scutellum densely and finely punctate throughout; punctures of abdomen coarse, tuberculate; abdomen with strong aeneous luster ---- **5. metallicus**
   Scutellum with a group of rather coarse punctures surrounded by smooth areas; punctures of abdomen rather fine; abdomen without strong aeneous luster -- 4
4. Fourth segment of maxillary palpus abruptly diagonally truncate, about twice as long as broad -- **6. darlingtoni**
   Fourth segment of maxillary palpus elongate, attenuated, about three times as long as broad --- 5
5. Abdomen with slight aeneous luster ----------------------------- **3. aenescens**
   Abdomen without trace of aeneous luster ------------------------ **1. trinitatis**

1. ACYLOPHORUS TRINITATIS, new species

Description.—Black, pronotum rufopiceous, margins of abdominal segments rufescent. *Head* as broad as long, subcircular, eyes about half as long as head; maxillary palpus with third and fourth segments somewhat enlarged, fourth acuminate; with a few large setiferous punctures around sides of disk and one above each eye, and with a few minute and indefinite punctulae; without ground sculpture. *Pronotum* one-sixth wider than long, sides and base completely rounded from front angles; with a pair of large discal punctures at middle and another at apical sixth, and one near side at apical third; with scattered punctulae as on head and without ground sculpture. *Scutellum* with a few punctures as on base of elytra surrounded by smooth margin. *Elytra* with moderately coarse but distinctly muricate punctures separated by one to two times their diameter; without ground sculpture. *Abdomen* with rather coarsely submuricate punctures bearing very strong setae and separated by one to two times their diameter; without ground sculpture. Length, 5 to 5½ mm.

Type locality.—Trinidad, foothills north of Tunapuna.

Types.—Holotype and one paratype in the Museum of Comparative Zoology; two paratypes in the United States National Museum (No. 52531); collected on May 25, 1935, by N. A. Weber. (Paratypes partly from the other localities listed below.)

Records.—The following are the records known to me:

Trinidad: Tunapuna (Weber, in M.C.Z. and U.S.N.M.), Cedros (Darlington, in M.C.Z.), St. Augustine (Darlington, in U.S.N.M.)

Specimens examined.—I have seen only the four types.

Remarks.—This species is not greatly different in any obvious character from the others described here but seems to be distinct as outlined in the key. It is much smaller than *darlingtoni*, which is the only other species known from Trinidad.

I have received no record of its habits.

2. ACYLOPHORUS INSULANUS Bierig

Acylophorus insulanus Bierig, 1938, pp. 125, 128, 129, figs. 16, 28.

Description.—Intense black, border of seventh tergite and apex of abdomen rufous. *Head* with postgena densely punctate and pubescent; occipital furrow distinct; fourth segment of maxillary palpus slightly enlarged and acuminate; finely and densely punctured behind the eyes. *Pronotum* one-twelfth wider than long. *Elytra* one-fourth broader than long. *Scutellum* with punctures as on base of elytra. *Abdomen* with punctures crowded at the base of each segment, so as to elevate the narrow intervals. Length, 6½ to 7½ mm. (From Bierig.)

Type locality.—Cuba.

Types.—In the collection of Alexander Bierig.

Records.—The following are the records known to me:

Cuba: El Mariel (Bierig, 1938), Laguna La Canoa (Bierig, 1938).
Isle of Pines: (Bierig, 1938).

Specimens examined.—I have seen no examples of this species.

Remarks.—This species is placed in the subgenus *Acylophorus* s. str. by Bierig. It had previously been identified as *A. pronus* Erichson, from which he distinguishes it.

The types were found on the banks of streams and ponds, about the base of plants.

3. ACYLOPHORUS AENESCENS, new species

Description.—Black, abdomen with faint bluish luster. *Head* suborbicular, eyes more than half as long as head; maxillary palpus with third and fourth segments somewhat enlarged, fourth acuminate; with a few large setiferous punctures around sides of disk and one above each eye, and with scattered punctulae almost obsolete; without ground sculpture. *Pronotum* slightly wider than long, with a pair of large discal punctures just before middle and another subapical, and one near side at apical fifth; with obsolete punctulae as on head and without ground sculpture. *Scutellum* with a few punctures as on base of elytra surrounded by a broad smooth margin. *Elytra* with moderately coarse but distinctly muricate punctures separated by one to two times their diameter; without ground sculpture. *Abdomen* with moderate submuricate punctures bearing strong setae and separated by two to four times their diameter; without ground sculpture. Length, 5½ mm.

Type locality.—Dominican Republic, Sánchez.

Types.—Holotype in the Museum of Comparative Zoology, collected in July 1938 by Dr. P. J. Darlington.

Records.—The following is the only record known to me:

Hispaniola: DOMINICAN REPUBLIC, Sánchez (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the unique type.

Remarks.—This species differs from *metallicus* in the sparse coarse scutellar punctures, in the nontuberculate punctures of the abdomen, and in the weakness of the luster.

I have received no record of its habits.

4. ACYLOPHORUS HATUEY Bierig

Acylophorus (s. str.) *hatuey* BIERIG, 1938a, pp. 120, 126, 127, 128, figs. 2, 29.

Description.—Black, apical border of abdominal tergites rufous, with distinct aeneous luster. *Head* short oval; postgena punctured and pubescent; occipital furrow well-marked; maxillary palpus with third and fourth segments somewhat enlarged, fourth acuminate but shorter than in *insulanus*. *Scutellum* finely punctate, as base of elytra. *Elytra* scarcely longer than pronotum, more crowded and more asperate than in *insulanus*. *Abdomen* with punctures moderately dense on the basal tergites. Length, 5½ to 7 mm. (From Bierig.)

Type locality.—Cuba.

Types.—In the collection of Alexander Bierig.

Records.—The following are the records known to me:

Cuba: El Rangel, Sierra del Rosario (Bierig, 1938), Laguna del Somorrostro (Bierig, 1938), Aspiro (Bierig, 1938).

Specimens examined.—I have seen no examples of this species.

Remarks.—This species also is placed by Bierig in the subgenus *Acylophorus* s. str. It is described as being closely related to *A. insulanus* and appears to differ principally in the aeneous luster.

I find no record of its habits.

5. ACYLOPHORUS METALLICUS, new species

Description.—Black, pronotum rufopiceous, abdomen with strong aeneous luster. *Head* suborbicular; eyes about half as long as head; maxillary palpus with third and fourth segments somewhat enlarged, fourth acuminate; with a few large setiferous punctures around sides of disk and one above each eye, and with scattered punctulae almost obsolete; without ground sculpture. *Pronotum* slightly wider than long; with a pair of large discal punctures near middle and another pair at apical three-fourths, and a diagonal pair on each side near front angle; with obsolete punctulae as on head and without ground sculpture. *Scutellum* punctured as base of elytra with only a very narrow smooth border. *Elytra* with moderately coarse but submuricate punctures often touching transversely and separated by twice their diameter or more longitudinally; without ground sculpture. *Abdomen* with setiferous punctures appearing to be coarsely tuberculate, moderately dense; with strong luster. Length, 7 mm.

Type locality.—Dominican Republic, Sánchez.

Types.—Holotype in the Museum of Comparative Zoology; one paratype in the United States National Museum (No. 52532); collected in July 1938 by Dr. P. J. Darlington.

Records.—The following is the only record known to me:

Hispaniola: DOMINICAN REPUBLIC (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the two types.

Remarks.—This species is readily distinguishable by its strong luster, by the tuberculose abdominal punctures, and by the punctures of the pronotum.

I have received no record of its habits.

6. ACYLOPHORUS DARLINGTONI, new species

Acylophorus longicornis var. *thaxteri* BERNHAUER, MS.

Description.—Black, margin of apical segments rufous; pubescence castaneous. *Head* nearly as broad as long, suborbicular; eyes a little less than half as long as head; fourth segment of maxillary palpus enlarged, fusiform or diagonally truncate; with a few large setiferous punctures around sides of disk and one above each eye; without distinct punctulae or ground sculpture. *Pronotom* about one-ninth broader than long; with a pair of large discal punctures just before middle and a pair submarginal in front, and with one or two near the anterior angle; without punctulae or ground sculpture. *Scutellum* punctured as base of elytra with a distinct smooth border. *Elytra* with moderately coarse and strongly submuricate punctures, sometimes uniting transversely, usually separated by twice their diameter longitudinally; without ground sculpture. *Abdomen* with setiferous punctures dense at base and sparse at apex of each segment, rather strongly submuricate; without ground sculpture. Length, 8 to 9 mm.

Type locality.—Trinidad, Cedros.

Types.—Holotype and six paratypes in the Museum of Comparative Zoology; five paratypes in the United States National Museum (No. 52533); collected on May 4, 1929 by Dr. P. J. Darlington.

Records.—The following are the records known to me:

Trinidad: Cedros (Darlington, in M.C.Z.), St. Augustine (Darlington, in M.C.Z.), Four Roads (Thaxter, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen one example from the Museum of Comparative Zoology in addition to the types.

Remarks.—In addition to its size this species may be recognized by the structure of the maxillary palpus.

Ten of the paratypes were taken in "ditches in Brown's cacao."

LXXVI. Genus ATANYGNATHUS Jacobson

Tanygnathus ERICHSON, 1838a, p. 417 (not Wagler).
Tanygnatus EICHELBAUM, 1909, p. 159 (misspelling).
Atanygnathus JACOBSON, 1909, p. 521.
Tanygnathinus REITTER, 1909, p. 105.

Genotypes.—*Tanygnathus terminalis* Erichson (monobasic) (for all three names).

Diagnosis.—Head and pronotum without dense umbilicate punctures, margined beneath the eyes; antennae widely separated at front of head, not strongly geniculate, segments pubescent from the second joint; labrum transverse and densely hairy in front; mouth parts much elongate, palpi very long and slender, fourth segment of maxillary longer than the third, the labial similar to the maxillary; gular sutures separate; lateral margin of pronotum single; anterior coxal cavities entirely open behind; front coxae large, exserted; posterior coxae contiguous, "triangular," with a small expansion over the base of femur; first and second abdominal sternites absent; femora unarmed except sometimes for a strong comb of setae at the base of the anterior ones; anterior tarsi 5-segmented, middle and posterior 4-segmented.

Remarks.—This is the only American genus of the Quediini (or even of the Staphylininae) that does not have all the tarsi 5-segmented. It is a small genus but occurs all over the world.

I have seen 82 examples from the West Indies. I assign these to two species, both previously described but one heretofore known only from the original description.

KEY TO WEST INDIAN SPECIES OF ATANYGNATHUS

1. Elytral punctures exceedingly fine, somewhat indistinct........ **2. laticollis**
   Elytral punctures not very fine, distinct.................... **1. heterocerus**

1. ATANYGNATHUS HETEROCERUS Cameron

Atanygnathus heterocerus CAMERON, 1922, p. 123 (as variety of *antennalis* Sharp).—SCHEERPELTZ, 1933, p. 1468.

Description.—Head piceous, pronotum rufopiceous to rufous, elytra and abdomen castaneous to rufocastaneous. *Head* more or less strongly narrowed behind the eyes; not distinctly punctate except at sides, but with rather indistinct scaly ground sculpture. *Pronotum* over one-fifth wider than long, completely rounded posteriorly and arcuately narrowed in front; with a single pair of discal punctures in front of middle; with ground sculpture as on head but less distinct. *Elytra* with moderate punctures separated by less than their diameter, bluntly and indistinctly submuricate. *Abdomen* with fine posteriorly excavated punctures, moderately sparse; without distinct ground sculpture. Length, 4 to 5 mm.

Type locality.—Grenada.

Types.—In the British Museum.

Records.—The following are the records known to me:

St. Vincent: (Cameron, 1922; British Museum; Cameron collection; U.S.N.M.).
Grenada: (Cameron, 1922; British Museum; Cameron collection; U.S.N.M.; Blackwelder station 155.)

Specimens examined.—I have seen from the West Indies 30 examples in the British Museum, 6 in Dr. Cameron's collection, 7 in the United States National Museum, and 1 collected by me in January 1936. (All but the last of these are from the original series.)

Remarks.—This species appears to be distinct from *laticollis* by the punctation of the elytra. It was described by Dr. Cameron as a variety of *antennalis* Sharp but I have not been able to verify this. For the present I believe it best to consider it as a distinct species, although the characters mentioned by Dr. Cameron are quite insufficient to distinguish it from *antennalis*.

My specimen was found under stones along a small stream.

2. ATANYGNATHUS LATICOLLIS (Erichson)

Tanygnathus laticollis Erichson, 1839b, p. 289.—Lacordaire, 1854, p. 60.—Leng and Mutchler, 1914, p. 405.
Atanygnathus laticollis (Erichson) Bernhauer and Schubert, 1916, p. 440.

Description.—Piceous to rufopiceous, pronotum rufous, elytra and abdomen piceocastaneous or rufocastaneous. *Head* not narrowed behind the eyes but strongly triangular in front; without punctures except for one or two at sides, but with very indistinct ground sculpture. *Pronotum* over one-fifth wider than long, completely rounded posteriorly and arcuately narrowed in front; with a single pair of discal punctures and a corresponding pair of anterior submarginal ones; with ground sculpture as on head. *Elytra* rather finely and not very distinctly punctate; surface with irregular and indistinct ground sculpture. *Abdomen* finely and moderately densely submuricately punctate; with distinct but irregular ground sculpture. Length, 4 to 5 mm.

Type locality.—"Amer. mer. ins. St. Vincentii."

Types.—Probably in the Hope Museum, Oxford.

Records.—The following are the records known to me:

Cuba: Soledad (Darlington, in M.C.Z. and U.S.N.M.), Rangel Mountains, Pinar del Rio (Darlington, in M.C.Z.), Hanabanillo Falls, Trinidad Mountains (Darlington, in M.C.Z.)
Hispaniola: Dominican Republic, San José de las Matas (Darlington, in M.C.Z.), Sánchez (Darlington, in M.C.Z. and U.S.N.M.), Puerto Plata (Darlington, in M.C.Z. and U.S.N.M.).
Puerto Rico: Mayaguez (Blackwelder station 50B).
Antigua: (H. E. Box, as Blackwelder stations 444S, 444U).
St. Vincent: (Erichson, 1839b; Lacordaire, 1854; Blackwelder station 166).
Trinidad: Maracas Falls (Weber, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen 31 specimens from the Museum of Comparative Zoology and seven collected by me during 1935–37.

Remarks.—Although I found no examples identified as this species in the British Museum or in Dr. Cameron's collection, there is little doubt of the identity of the species. One example labeled *vilis* Sharp in Dr. Cameron's collection seems to belong to this species, but I cannot state whether *laticollis* and *vilis* may be the same.

My examples were taken among the rotting "fruit" of an imported palm and under stones and sand along streams.

KEY TO WEST INDIAN GENERA OF XANTHOLININI

1. Head and pronotum densely umbilicately punctate ______ LXXIX. **Plochionocerus**
   Head and pronotum at most sparsely punctate ______ 2
2. Fourth segment of maxillary palpus much shorter than third, more or less acicular ______ 5
   Fourth segment of maxillary palpus not or scarcely shorter than third, not acicular ______ 3
3. Upper marginal line of pronotum joining lower line. LXXVIII. **Thyreocephalus**
   Upper marginal line of pronotum extending to or toward anterior angles without uniting with lower line ______ 4
4. Fourth segment of maxillary palpus conical, slightly shorter than third. LXXX. **Leptacinus**
   Fourth segment of maxillary palpus distinctly longer than third. LXXVII. **Xantholinus**
5. Ocular grooves long and distinct ______ 6
   Ocular grooves absent or indistinct ______ 7
6. Gular sutures visible throughout ______ LXXXIII. **Stenolinus**
   Gular sutures obsolete except in front ______ LXXXIV. **Oligolinus**
7. Anterior tarsi strongly dilated ______ LXXXII. **Microlinus**
   Anterior tarsi not much dilated ______ LXXXI. **Lithocharodes**

LXXVII. Genus XANTHOLINUS Dejean

Xantholinus Dejean, 1821, p. 23.
Subgenus *Megalinus* Mulsant and Rey, 1877b, p. 45.
Metacyclinus Reitter, 1909, p. 137.
Subgenus *Notolinus* Casey, 1906, p. 371.
Subgenus *Idiolinus* Casey, 1906, p. 375.
Subgenus *Notolinopsis* Casey, 1906, p. 377.
Subgenus *Hypnogyra* Casey, 1906, p. 394.
Subgenus *Calontholinus* Reitter, 1908, p. 114.
Subgenus *Milichilinus* Reitter, 1909, p. 137.
Subgenus *Typhlolinus* Reitter, 1909, p. 138.
Xantholinum Wawerka, 1928, p. 33.

Genotypes.—*Paederus fulgidus* Fabricius=*Xantholinus fulgidus* (Fabricius) (designated here). Of *Metacyclinus*, *Staphylinus glabratus* Gravenhorst=*Xantholinus* (*Metacyclinus*) *glabratus* (Gravenhorst) (designated here); of *Milichilinus*, *Xantholinus decorus* Erichson=*Xantholinus* (*Milichilinus*) *decorus* (Erichson) (monobasic); of *Typhlolinus*, *Xantholinus* (*Typhlolinus*) *hungaricus* Reitter (monobasic); of *Hypnogyra*, *Xantholinus gularis* LeConte=*Xantholinus* (*Hypnogyra*) *gularis* (LeConte) (designated here); of *Notolinopsis*, *N. capensis* Casey (designated here); of *Notolinus*, *N. fumipennis* Casey (designated here); of *Idiolinus*, *Xantholinus crassicornis* Hochhuth=*Idiolinus crassicornis* (Hochhuth) (monobasic); of *Megalinus*, *Staphylinus glabratus* Gravenhorst=*Xantholinus* (*Megalinus*) *glabratus* (Gravenhorst) (monobasic); of *Calontholinus*, *Xantholinus* (*Calontholinus*) *fasciatus* Hochhuth (monobasic).

Diagnosis.—Head and pronotum not densely umbilicately punctate; antennal grooves distinct, ocular grooves absent; antennae inserted close together at anterior margin of head, basal segment generally less than half as long as head, outer segments densely pubescent from the fourth joint; labrum small, feebly emarginate; fourth segment of maxillary palpus distinctly longer than third; last segment of labial palpus similar in shape to maxillary; gular sutures united or closely approximate in part; neck generally more than one-third as wide as head; pronotum with side margin double, the lines always separate; prosternum with a pair of large sclerites in front of the sternite; elytra with suture broadly beveled; middle coxae widely separated; posterior coxae contiguous, "triangular"; first and second abdominal sternites absent or represented only by tiny sclerites at the sides; intersegmental membranes of abdomen marked with a pattern of angular areas in longitudinal bands; anterior tarsi not much dilated.

Remarks.—This genus is distinguished by the structure of the palpi and the separate marginal lines of the pronotum. It is a worldwide genus and as herein defined is more abundantly represented in the Western Hemisphere than was thought by Col. Casey.

The authorship of this genus has apparently been erroneously cited for many years. In the Encyclopédie Méthodique (1825, p. 475) Serville gives a key to the groups of Staphylininae and obviously intends to propose the genus *Xantholinus*. However, he fails to give a Latin form to the name and also fails to cite any species. It is therefore impossible to accept his proposal of the genus, although this is the reference cited by all recent writers. The question of accepting this use of the name is, however, not important since it was used at least twice at previous dates. In 1823 Dahl used the name at the head of a list of 8 species, of which 3 or 4 were valid names, and in 1821 Dejean used the name over a list of 21 species of which 9 were valid. Although there is no question that new specific names proposed in these lists are *nomina nuda* and not valid, there seems to be no reason for not accepting new generic names that were proposed for valid species. Accordingly Dejean becomes the author of *Xantholinus* unless and until a previous validation of the name is found.

The names *Typhlodes* Sharp and *Vulda* DuVal have been cited as subgenera of *Xantholinus*. The original descriptions of these appear to me to contain characters of sufficient importance to separate them generically.

I have examined 655 examples of this genus from the West Indies. These I assign to 16 species of which 11 appear to be new. One other species recorded from the West Indies is not recognized in the present collections.

KEY TO WEST INDIAN SPECIES OF XANTHOLINUS

1. Head broader than long, broader than elytra (at least in male) ------ 17. hydrocephalus
Head longer than broad, not broader than elytra ------ 2
2. Pronotum entirely without discal punctures ------ 16. illucens
Pronotum with few or many discal punctures ------ 3
3. Head with additional fine postantennal grooves ------ 4
Head without additional postantennal grooves ------ 10
4. Head and pronotum with distinct ground sculpture of lines ------ 5
Head and pronotum without ground sculpture ------ 6
5. Center of vertex sparsely punctate; pronotum with 12 or 13 punctures in discal series ------ 14. jamaicensis
Center of vertex almost impunctate; pronotum with 9 to 10 punctures in dorsal series ------ 15. impunctus
6. Center of vertex sparsely punctate *or* eyes separated from base of head by barely three times their length ------ 7
Center of vertex impunctate and eyes separated from base by well over three times their length ------ 13. solitarius
7. Elytra with humeri distinctly paler ------ 12. beattyi
Elytra without pale humeri ------ 8
8. Head one-fourth longer than wide ------ 11. haitius
Head about one-eighth longer than wide or less ------ 9
9. Pronotal series irregular but with numerous punctures ------ 9. audanti
Pronotal series with not over seven punctures ------ 10. morrisoni
10. Coarse punctures of head interspersed with distinct and dense punctulae ------ 11
Coarse punctures of head not interspersed with punctulae ------ 13
11. Head with distinct ground sculpture ------ 12
Head without distinct ground sculpture ------ 6. cubensis
12. Elytra with dense ground sculpture ------ 8. rulomus
Elytra uneven but without distinct ground sculpture ------ 7. darlingtoni
13. Elytra unicolorous ------ 14
Elytra in part paler ------ 15
14. Most of elytral punctures in series ------ 1. oakleyi
Only outer punctures in series ------ 2. insulatus

15. Elytra paler near apex (or outer apical angle)	16
Elytra paler near base	5. humeralis
16. Antennal grooves punctate	17
Antennal grooves impunctate	3. fuscipennis
17. Outer apical diagonal half of elytra testaceous	[21]
Apex of elytra indefinitely paler	4. attenuatus

1. XANTHOLINUS OAKLEYI, new species

Description.—Head black, pronotum and abdomen rufopiceous to rufocastaneous, elytra uniform castaneous or piceocastaneous. *Head* over one-sixth longer than wide, distinctly but narrowly cordate including mandible; antennal grooves strong, impunctate except for a single apical puncture; without additional post-antennal grooves or ocular grooves; with scattered umbilicate punctures of uneven size leaving a smooth median area; without ground sculpture. *Pronotum* three-eighths longer than wide, widest in anterior third, evenly narrowed posteriorly to rounded base; with median smooth area outlined by two series of nine punctures, with lateral series of six or seven punctures but almost no others; without ground sculpture. *Elytra* not very coarsely or densely punctate, nearly all the punctures arranged in series; the intervals flat and indistinctly coriaceous. *Abdomen* sparsely but not very finely submuricately punctate, with indefinite transverse strigulae. Length, 3½ to 4½ mm.

Type locality.—Puerto Rico, 13 miles east of Maricao.

Types.—Holotype and paratype, U.S.N.M. No. 52434, collected by me on October 3, 1935; and one paratype from Villalba.

Records.—The following are the records known to me:

Hispaniola: DOMINICAN REPUBLIC, Mount Diego de Ocampo (Darlington, in M.C.Z.).

Puerto Rico: Maricao (Blackwelder station 47A), Villalba (Blackwelder station 62).

Specimens examined.—I have seen only the three types and one example from the Museum of Comparative Zoology.

Remarks.—This species is distinguished by the serial arrangement of the elytral punctures and the lack of extraserial punctures on the pronotum.

The types were found in dung and manure.

2. XANTHOLINUS INSULATUS Cameron

Xantholinus insulatus CAMERON, 1922, p. 115.

Xantholinus insularis FAUVEL, MS.—CAMERON, 1922, p. 115.—SCHEERPELTZ, 1933, p. 1131 (misspelling). (Not Bernhauer, 1904.)

Description.—Rufopiceous, head black. *Head* one-eighth longer than wide, not enlarged behind the eyes, basal angles broadly rounded; antennal grooves rather feeble though not shortened; ocular grooves absent; with large and somewhat elongate umbilicate punctures at sides; without minute punctulae or ground sculpture. *Pronotum* nearly one-fifth longer than wide, widest in anterior third, moderately narrowed posteriorly with sides emarginate at basal third; with smooth midline marked by two series of about eight punctures, and with an irregular lateral series and a few scattered punctures; without ground sculpture. *Elytra* with moderately coarse but generally not serial punctures, intervals flat. *Abdomen* sparsely and finely submuricately punctate, and with indistinct transverse strigulae. Length, 5 mm.

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[21] One specimen taken in quarantine at New York City from cargo that originated in Haiti seems very distinct. The absence of reliable data prevents its description here.

Type locality.—Grenada, Mount Gay Estate.

Types.—In the British Museum.

Records.—The following are the records known to me:

Grenadines: Mustique (Cameron, 1922; British Museum).
Grenada: (Cameron, 1922; British Museum; Scheerpeltz, 1933).

Specimens examined.—I have examined the type in the British Museum and one other example that was borrowed for further study.

Remarks.—This species has not been collected since its discovery. It is not strikingly distinct from related species but seems to be valid as set out in the key.

I find no record of its habits.

3. XANTHOLINUS FUSCIPENNIS Cameron

Xantholinus fuscipennis CAMERON, 1922, p. 115 (as variety of *vilis* Sharp).—SCHEERPELTZ, 1933, p. 1314 (as variety of *pusillus* Sachse).

Description.—Head black, pronotum and abdomen piceous, elytra piceous with apical third indefinitely testaceous. *Head* about one-sixth longer than wide, sides arcuate behind eyes and rounded into base; antennal grooves strong and straight, not distinctly punctate; ocular grooves absent; with large umbilicate punctures at sides and base, but vertex impunctate; without punctulate or distinct ground sculpture. *Pronotum* about three-eighths longer than wide, widest in front, sides narrowed to the rounded base but slightly emarginate behind middle; with smooth midline marked by two series of eight punctures, and with an irregular series of four or five laterally; without ground sculpture. *Elytra* with moderately coarse and not dense punctures almost entirely in series; intervals rather flat. *Abdomen* moderately sparsely and rather finely submuricately punctate, and with indistinct transverse strigulae. Length, 4 to 5 mm.

Type locality.—Jamaica.

Types.—In collection of Dr. Cameron.

Records.—The following are the records known to me:

Jamaica: (Cameron, 1922; Scheerpeltz, 1933; Cameron collection), Santa Cruz (Blackwelder station 421), May Pen (Blackwelder station 425C), Balaclava (Blackwelder station 397B), Trinityville (Blackwelder station 428), Black River (Blackwelder station 420), Kingston (Blackwelder station 1C), Milk River (Blackwelder station 415), Moneague (Blackwelder station 375).

Specimens examined.—I have seen 12 examples in Dr. Cameron's collection and 15 collected by Chapin and Blackwelder in February 1937.

Remarks.—This species was described as a variety of *X. vilis* Sharp. The West Indian specimens identified as *vilis* in the British Museum are quite distinct, but I have not compared specimens of *fuscipennis* directly with the type of *vilis.* I believe, however, that it will prove to be a distinct species. Among West Indian species it is distinguished by its elytral coloration and the impunctate antennal grooves.

Our examples were collected from dung and manure and flying at dusk.

4. XANTHOLINUS ATTENUATUS Erichson

Xantholinus attenuatus Erichson, 1839b p. 330.—Scriba, 1855, p. 299.—Duval, 1857, p. 34.—Chevrolat and Fauvel, 1863, p. 430.—Fauvel, 1866, p. 350.—Sharp, 1876, p. 203; 1885, p. 484.—Bernhauer and Schubert, 1914, p. 301.—Leng and Mutchler, 1914, p. 406.—Wolcott, 1924, p. 78; 1936, p. 197.

Description.—Head black, pronotum and abdomen rufocastaneous, elytra rufescent with outer apical corner indefinitely testaceous. *Head* about one-fifth longer than wide, sides behind eyes feebly arcuate but head not widened posteriorly, basal angles marked by ridges at sides; antennal grooves strong, with one or more distinct punctures, especially near apex; ocular grooves absent; with large umbilicate punctures at sides, vertex almost impunctate except behind; with minute punctulae throughout but without ground sculpture. *Pronotum* over one-fifth longer than wide, widest at anterior angles, thence feebly and evenly narrowed to rounded base; with smooth midline marked by two series of six or seven punctures, and with an irregular lateral series and a few other punctures; without ground sculpture. *Elytra* with coarse but not dense punctures more or less serial, but irregular in size and spacing. *Abdomen* sparsely and not coarsely submuricately punctate, and with indistinct transverse strigulae. Length, 4½ to 7 mm.

Type locality.—"Americae insulis St. Thomae et Puerto Rico . . . St. Vincentii . . . in Brasilia . . ."

Types.—In either the Hope Museum, Oxford, the Zoologische Museum, Berlin, or the Muséum d'Histoire Naturelle, Geneva.

Records.—The following are the records known to me:

Cuba: (DuVal, 1857; Fauvel, 1863; Leng and Mutchler, 1914), Almendares (Cameron collection), Soledad (Darlington, in M.C.Z.).

Jamaica: May Pen (Blackwelder station 425C).

Puerto Rico: (Erichson, 1839b; DuVal, 1857; Fauvel, 1863; Leng and Mutchler, 1914; Wolcott, 1924, 1936), Mayagüez (Blackwelder station 50A), San Juan (Blackwelder stations 43C, 45, 345, 353B), Bayamon (Busck, in U.S.N.M.), San German (Danforth collection; Dozier, in U.S.N.M.), Salinas (Blackwelder station 60), Humacao (Blackwelder station 54), Lake Guanica (Darlington, in M.C.Z.), Guanica (Wolcott, 1924, 1936; Wolcott collection; Dozier, in U.S.N.M.; Blackwelder stations 354, 356), Lajas (Wolcott collection; Dozier, in U.S.N.M.), Hormigueros (Wolcott collection; Dozier, in U.S.N.M.), Ensenada (Wolcott collection; Dozier, in U.S.N.M.), Sabana Grande (Dozier, in U.S.N.M.), Mayagüez (Dozier, in U.S.N.M.).

St. Thomas: (Erichson, 1839b; DuVal, 1857; Fauvel, 1863; Leng and Mutchler, 1914).

St. Kitts: (Blackwelder stations 297, 302, 304, 305, 306, 312).

Antigua: (Blackwelder stations 275A, 275B, 281A, 285A, 285B, 290, 294; H. E. Box, as Blackwelder stations 444O, 444R, 444T).

Montserrat: (Blackwelder stations 262, 265B, 267B, 270).

Guadeloupe: Basse Terre (Blackwelder station 75), Grande Terre (Blackwelder stations 89, 90B).

Dominica: (Blackwelder station 257B).

Barbados: (Blackwelder stations 187, 193B, 194, 195, 198A, 199, 201A, 201B).

St. Vincent: (Erichson, 1839b; Du Val, 1857; Fauvel, 1863; Leng and Mutchler, 1914; Blackwelder stations 168, 172, 175, 180, 185; British Museum).

Grenada: (Blackwelder station 150; British Museum).

Tobago: (Blackwelder station 117A).

Trinidad: (Blackwelder station 130).

South America: BRAZIL (Erichson, 1839b; Du Val, 1857; Fauvel, 1866; Sharp, 1876; Cameron collection), VENEZUELA, BRAZIL, ARGENTINA, PARAGUAY (Bernhauer and Schubert, 1914), VENEZUELA (Scriba, 1855).

Central America: MEXICO (Bernhauer and Schubert, 1914).

Specimens examined.—I have examined 4 examples in the British Museum, 7 in the collection of Dr. Cameron, 11 in the Rio Piedras Experiment Station collection, 1 in the collection of Stuart T. Danforth, 2 in the Museum of Comparative Zoology, 21 in the United States National Museum, and 307 collected by me in 1935–37.

Remarks.—This species is readily distinguishable by the color pattern of the elytra and the punctate antennal grooves. The former is variable in the extent of the testaceous outer angles as well as in the abruptness of the pale area.

My specimens were collected from dung, manure, carrion, decaying grass, and the edge of streams.

5. XANTHOLINUS HUMERALIS Erichson

Xantholinus humeralis ERICHSON, 1839b, p. 327.—BERNHAUER and SCHUBERT, 1914, p. 304.—LENG and MUTCHLER, 1914, p. 406.

Xantholinus puncticeps DUVAL, 1857, p. 35.—CHEVROLAT and FAUVEL, 1863, p. 430.—GEMMINGER and HAROLD, 1868, p. 603.—BERNHAUER and SCHUBERT, 1914, p. 306. (Not Guérin, 1844; not White, 1874; not Eichelbaum, 1913.)

Xantholinus punctiger GEMMINGER and HAROLD, 1868, p. 603.—BERNHAUER and SCHUBERT, 1914, p. 306.—LENG and MUTCHLER, 1914, p. 406.

Description.—Head black, pronotum and abdomen piceous, elytra castaneous with large indefinite discal pale area frequently extending to sides and humerus. *Head* nearly one-fifth longer than wide, distinctly cordate with the mandibles forming the apex; antennal grooves strong, ocular grooves absent; with coarse and somewhat umbilicate punctures scattered particularly at sides, center of vertex impunctate; without ground sculture. *Pronotum* three-tenths longer than wide, widest at anterior angles which are narrowly rounded, thence evenly narrowed to base which is broadly rounded; wide smooth median area outlined by two series of six or seven punctures, with an indistinct lateral series and a few other punctures; without ground sculpture. *Elytra* with coarse but not dense punctures more or less serial, not evenly spaced. *Abdomen* with sparse submuricate setigerous punctures and indistinct transverse strigulae. Length, 4 to 5 mm.

Type locality.—St. John.

Types.—Either in the Hope Museum, Oxford, or the Zoologische Museum, Berlin.

Records.—The following are the records known to me:

Cuba: Du Val, 1857, as *puncticeps*), Cayamas (Schwarz, in U.S.N.M.).
Hispaniola: Haiti (Parish, in British Museum), Morne La Selle (Blackwelder station 22A; André Audant, in Service Technique).
Puerto Rico: Maricao (Blackwelder station 47A), San German (Dozier, in U.S.N.M.).
St. John: (Erichson, 1839b).
St. Croix: (Blackwelder stations 331, 335B, 339; H. A. Beatty, in U.S.N.M.).
Antigua: (H. E. Box, as Blackwelder station 440O).
Montserrat: (Blackwelder stations 262, 265B, 270).
Dominica: (Blackwelder station 250).
St. Vincent: (Blackwelder stations 165, 175, 179; British Museum, as *vilis;* U.S.N.M.).

Specimens examined.—I have examined 49 examples in the British Museum, 11 in the United States National Museum, and 48 collected by me in 1935–37.

Remarks.—The West Indian specimens identified in the British Museum as *vilis* Sharp differ from the Guatemalan type in part as follows: They have six or seven punctures in the pronotal series instead of eight, nine, or ten; the antennal segments are more transverse, the whole more compact; the punctures of the head are larger and there are more of them on the disk. They seem to agree perfectly with specimens identified as *humeralis* and *puncticeps*. This species may be recognized by the coloring of the elytra, although it varies in extent and paleness.

All my specimens were collected from dung or among decaying forest debris.

6. XANTHOLINUS CUBENSIS, new species

Description.—Black, pronotum and abdomen piceous, elytra somewhat rufescent and indefinitely paler both at humeri and along apex. *Head* as wide as long, sides converging in front, basal angles distinct; eyes not at all prominent, at a little more than twice their length from base; antennal grooves moderately impressed but even and ending in a single puncture; without additional post-antennal grooves or distinct ocular grooves; with sparse coarse umbilicate punctures except along middle of vertex, and interspersed with fine punctulae; without distinct ground sculpture except at base. *Pronotum* one-third longer than wide, widest from anterior angles to just before middle, thence feebly but emarginately narrowed to broadly rounded base; with wide smooth median area outlined by two series of five or six punctures, with a lateral series of four or five and a few others; without distinct ground sculpture. *Elytra* with moderately coarse sparse punctures arranged in series in outer half only. *Abdomen* with sparse fine submuricate punctures at the sides, and indistinct transverse strigulae. Length 4½ to 5½ mm.

Type locality.—Cuba, Sierra Bonilla.

Types.—Holotype, U.S.N.M. No. 52522, collected on January 5, 1929, by Alexander Bierig; three paratypes in the Museum of Comparative Zoology and one in the United States National Museum, collected in 1936 by Dr. P. J. Darlington.

Records.—The following are the records known to me:

Cuba: Sierra Bonilla (Bierig, in U.S.N.M.), Trinidad Mountains (Darlington, in M.C.Z. and U.S.N.M.), Gran Piedra Range in Oriente (Darlington, in M.C.Z.), Imias in Oriente (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the five types.

Remarks.—This species is distinguished by the sculpture of the head and the shape of the pronotum. There appear to be some sexual differences in the shape of the head and pronotum.

The type was received from Sr. Bierig under the name *X. puncticeps* DuVal, but it is very distinct from that species by the presence of punctulae on the head.

I have received no record of the habits of this species, except that it has been found at elevations up to 4,000 feet.

7. XANTHOLINUS DARLINGTONI, new species

Description.—Head black, rest piceous to piceocastaneous, elytra indefinitely paler across base. *Head* about one-eighth longer than wide, nearly parallel, basal angles broadly rounded except for a slight angular interruption; eyes not at all prominent, at nearly two and one-half times their length from base; antennal grooves moderately impressed and united at apex by a curved depression, not distinctly punctate; without additional postantennal or ocular grooves; with sparse elongate umbilicate punctures except along middle, and interspersed with large punctulae; with very irregular but distinct ground sculpture of strigulae. *Pronotum* about one-third longer than wide, widest near anterior angles, thence moderately narrowed (and feebly emarginate) to base with an angulation at anterior two-fifths, base and basal angles broadly rounded; smooth except for two discal series of five moderately coarse punctures and a recurved lateral series of six; with obsolescent ground sculpture. *Elytra* with moderately coarse sparse punctures arranged in series on outer half only. *Abdomen* with sparse irregular submuricate punctures except along middle; with feeble transverse strigulose ground sculpture. Length, 5 to 6 mm.

Type locality.—Haiti, La Visité and vicinity, in the La Selle Range; elevation 5,000 to 7.000 feet.

Types.—Holotype and five paratypes in the Museum of Comparative Zoology; four paratypes in the United States National Museum (no. 52523); collected on September 16–23, 1934, by Dr. P. J. Darlington.

Records.—The following is the only record known to me:

Hispaniola: Haiti, La Visité (Darlington, in M.C.Z. and U.S.N.M.), Morne Trou d'Eau (Darlington, in M.C Z).

Specimens examined.—I have seen only the types and one example from the Museum of Comparative Zoology.

Remarks.—This species may be distinguished by the regular pronotal series, by the more or less distinct uniting of the postantennal grooves by a depression, and by the sculpture of the head.

I have received no record of its habits.

8. XANTHOLINUS RULOMUS, new species

Description.—Black, elytra dull piceous with base testaceous. *Head* about one-eleventh longer than wide, nearly parallel, basal angles moderately rounded but with a slight interruption; eyes scarcely prominent, at about twice their length from base; antennal grooves moderately impressed and irregularly united at apex by an arcuate depression, not distinctly punctate; without additional postantennal or ocular grooves; with sparse elongate umbilicate punctures interspersed with large punctulae; with irregular strigulose ground sculpture. *Pronotum* about one-third longer than wide, widest along anterior two-fifths, thence feebly narrowed and emarginate posteriorly, base and basal angles broadly rounded; dorsal series of six punctures arranged in pairs; recurved lateral series of seven or eight; otherwise smooth except for obsolescent strigulae at sides. *Elytra* with rather coarse punctures not serial except for one series on disk but obscured by dense granulose ground sculpture. *Abdomen* with sparse moderate umbilicate punctures except along middle; with very feeble transverse strigulose ground sculpture. Length, 5 mm.

Type locality.—Dominican Republic, Jarabacoa; elevation 1,500 to 4,000 feet.

Types.—Holotype in the Museum of Comparative Zoology, collected in August 1938 by Dr. P. J. Darlington.

Records.—The following is the only record known to me:

Hispaniola: Dominican Republic, Jarabacoa (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the holotype.

Remarks.—This species is at once distinguished by its granulose elytral sculpture. The coloration is also distinctive among our species.

I have received no record of its habits.

9. XANTHOLINUS AUDANTI, new species

Description.—Black, elytra and abdomen slightly rufescent. *Head* about one-fifth longer than wide, rather distinctly cordate with the mandibles, the basal angles broadly rounded; antennal grooves distinct but not deep, irregularly punctate apically; with a very short oblique additional groove from base of antennae; ocular groove absent; with scattered umbilicate punctures not leaving a distinct smooth median area; without ground sculpture. *Pronotum* over one-third longer than wide, widest in front, feebly but evenly narrowed to rounded base; with a smooth median space outlined by confused series of ten or more punctures, without distinct lateral series but with numerous punctures at sides; without ground sculpture. *Elytra* with coarse and rather dense punctures not distinctly serial in any part; surface not distinctly coriaceous. *Abdomen* sparsely but not finely submuricately punctate; with transverse strigulae which grade into reticulate ground sculpture at the base of each segment. Length, 9 mm.

Type locality.—Haiti, Port-au-Prince.

Types.—Holotype, U. S. N. M. No. 52433, taken on February 20, 1929, by André Audant; 23 paratypes, in the Museum of Comparative Zoology and the United States National Museum, collected in 1934 by Dr. P. J. Darlington.

Records.—The following are the records known to me:

Hispaniola: Haiti, Port-au-Prince (Audant, in U.S.N.M.), Kenskoff (Darlington, in M.C.Z. and U.S.N.M.), northeast foothills of the LaHotte Range (Darlington, in M.C.Z. and U.S.N.M.), Ennery (Darlington, in M.C.Z. and U.S.N.M.), mountains near Port-au-Prince (Darlington, in M.C.Z.), Étang Lachaux (Darlington, in M.C.Z.), Desbarriere (Darlington, in M.C.Z.); Dominican Republic, Sánchez (Darlington. in M.C.Z. and U.S.N.M.), Constanza (Darlington. in M.C.Z.), Villa Altagracia (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the 24 types and one other specimen from the Museum of Comparative Zoology.

Remarks.—This species may be distinguished by its size and uniform dark color. It also has the elytra more densely punctate than any of our other species. The type is retained in the United States

National Museum through the kindness of André Audant, of the Service Technique in Haiti.

I have no record of the habits of this species except that it has been taken principally at elevations of 3,000 to 4,000 feet.

10. XANTHOLINUS MORRISONI, new species

Description.—Black, elytra and tip of abdomen rufotestaceous. *Head* scarcely longer than wide; eyes not at all prominent; gradually wider posteriorly but with basal angles broadly rounded; antennal grooves feebly impressed but distinct and even, punctate apically, and with a fine oblique groove from each antennal base; ocular groove absent; with umbilicate punctures very scattered and of uneven sizes, absent from center of vertex; with minute punctulae between punctures, but without ground sculpture. *Pronotum* one-fifth longer than wide, widest in anterior third, somewhat emarginately narrowed to rounded base; with smooth midline outlined by two irregular series of five or six punctures, without a distinct lateral series but with a few scattered punctures; without ground sculpture. *Elytra* moderately coarsely punctate, but serially only at sides of disk; surface vaguely coriaceous but without ground sculpture. *Abdomen* with sparse but not very fine submuricate punctures, and indefinite transverse strigulae. Length, 7½ mm.

Type locality.—Trinidad, River Estate, 8 miles northwest of Port-of-Spain.

Types.—Holotype, U.S.N.M. No. 52436, collected on October 16, 1918, by Harold Morrison.

Records.—The following is the only record known to me:

Trinidad: River Estate (Morrison, in U.S.N.M.).

Specimens examined.—I have seen only the unique type.

Remarks.—This species is similar to the description of *hydrocephalus* in many respects but seems to be amply distinct by the following: The much greater size, the different coloring of the abdomen, the head only slightly dilated behind the eyes, and the dorsal pronotal series of five or six punctures.

I have no record of its habits.

11. XANTHOLINUS HAITIUS, new species

Description.—Black, sometimes picescent at edges of sclerites. *Head* one-third longer than wide, parallel, basal angles moderately rounded; antennal grooves very feeble, ending in a semicircle of large punctures, with an additional fine oblique groove from base of antennae, ocular grooves absent; with rather large impressed umbilicate punctures separated by one to two times their diameter, even on the disk; without trace of ground sculpture on the polished surface. *Pronotum* nearly one-half longer than wide, widest at anterior angles; sides nearly straight and slightly converging to the broadly rounded base and hind angles; median smooth space outlined by two series of nine or ten punctures, with an indefinite lateral series and a few others scattered at sides; without trace of ground sculpture. *Elytra* with moderately coarse punctures not serial except at sides; surface indistinctly coriaceous. *Abdomen* sparsely and finely submuricately punctate throughout; with feeble transverse strigulose ground sculpture. Length, 8 mm.

Type locality.—Haiti, Étang Lachaux on the southwest peninsula.

Types.—Holotype in the Museum of Comparative Zoology, collected on October 26–27, 1934, by Dr. P. J. Darlington.

Records.—The following is the only record known to me:

Hispaniola: HAITI, Étang Lachaux (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the holotype.

Remarks.—This species is distinct in the punctures of the head, which though fairly large at the surface are smaller at the bottom where the circle is all that makes them umbilicate. The elongate head and feeble antennal grooves are also unusual.

I have received no record of the habits of this species.

12. XANTHOLINUS BEATTYI, new species

Description.—Head black, pronotum, elytra, and abdomen slightly rufescent, elytra with tips of humeral angles indefinitely testaceous. *Head* about one-twelfth longer than wide, rather distinctly cordate with the mandibles, though the basal angles are not very broadly rounded; antennal grooves distinct though not very coarse, not punctate except near tip; with an additional fine oblique groove from the base of the antennae; ocular grooves absent; with scattered large umbilicate punctures except along middle, with very sparse minute punctulae between but without ground sculpture. *Pronotum* one-fourth longer than wide, widest at anterior angles, sides nearly straight and moderately narrowed at base which is broadly rounded; median smooth space outlined by two irregular series of six or seven punctures, with an indefinite lateral series and a few additional punctures; without ground sculpture. *Elytra* with coarse punctures not serial except at sides of disk; surface indistinctly coriaceous. *Abdomen* sparsely but not very finely submuricately punctate; with indefinite transverse strigulae. Length, 6 to 8 mm.

Type locality.—St. Croix, Butler Bay Estate.

Types.—Holotype and two paratypes, U.S.N.M. No. 52432, collected by me on November 14, 1936.

Records.—The following are the records known to me:

Cuba: Soledad (Darlington, in M.C.Z. and U.S.N.M.), Gran Piedra Range in Oriente (Darlington, in M.C.Z.), Loma del Gato in Cobre Range, Oriente (Darlington, in M.C.Z.), Buenos Aires in Trinidad Mountains (Darlington, in M.C.Z. and U.S.N.M.).

Hispaniola: HAITI, Port-au-Prince (Wolcott and Audant, in collection of Service Technique; R. J. Crew, in U.S.N.M.), Ennery (Darlington, in M.C.Z. and U.S.N.M.), Poste Terre Rouge (Darlington, in M.C.Z.), Diquini (Mann, in M.C.Z. and U.S.N.M.), St. Marc (Mann, in M.C.Z.) ; DOMINICAN REPUBLIC, Constanza (Darlington, in M.C.Z.).

St. Croix: (Blackwelder station 330; Beatty, in U.S.N.M.).

Specimens examined.—I have seen the 3 types collected by me in 1936, 3 other examples from the Service Technique in Haiti, and 18 examples from the Museum of Comparative Zoology.

Remarks.—This species is readily distinguished from *humeralis* by its greater size and from most other West Indian species by the testaceous elytral humerus. There is some variation in the extent of the serial arrangement of the elytral punctures. I am unable to distinguish the Cuban and Haitian examples from the St. Croix types. The types were collected from dung and manure.

13. XANTHOLINUS SOLITARIUS, new species

Description.—Head and pronotum rufous, elytra testaceous, abdomen castaneotestaceous, with apex rufescent. *Head* about one-fifth longer than wide, feebly enlarged behind the eyes, basal angles broadly rounded; antennal grooves feebly impressed and short, with a fine oblique groove from base of each antenna; ocular grooves absent; with punctures indistinctly umbilicate and of various sizes scattered except on vertex; without distinct punctulae or ground sculpture. *Pronotum* nearly one-half longer than wide, widest at anterior angles, feebly and sinuately narrowed to basal angles, which are distinct, base rounded; median smooth space outlined by two irregular series of eight or nine punctures, with an indefinite lateral series of about five punctures, and with a few additional punctures; without ground sculpture. *Elytra* with moderately coarse punctures generally in series; surface distinctly coriaceous. *Abdomen* sparsely but not very finely submuricately punctate; with indefinite strigulae replaced basally on each segment by scaly ground sculpture. Length, 8 mm.

Type locality.—Guadeloupe, Basse Terre, Matouba, 3 kilometers northwest of St. Claude.

Types.—Holotype, U.S.N.M. No. 52435, collected by me on November 6, 1935.

Records.—The following is the only record known to me:

Guadeloupe: Basse Terre (Blackwelder station 81).

Specimens examined.—I have seen only the holotype.

Remarks.—This specimen is possibly somewhat immature, but this apparently affects only the depth of color. It is distinguished from *beattyi* by the length of the temples and by the sparse punctures on the disk of the head.

The type was taken by sifting trash beneath a mud bank.

14. XANTHOLINUS JAMAICENSIS, new species

Description.—Piceous, pronotum somewhat rufescent. *Head* about one-fourth longer than wide, slightly narrowed in front, sides feebly arcuate behind and broadly rounded into base; eyes not prominent, at a little less than three times their length from base; antennal grooves feebly impressed, ending in a puncture; with an additional fine oblique groove from base of antennae; distinct ocular grooves absent; with moderate umbilicate punctures separated by half to two times their diameter; with fine strigulose ground sculpture. *Pronotum* one-half longer than wide, widest at anterior angles, sides straight and feebly converging to rounded basal angles; dorsal series irregular but with 11 or 12 punctures, and with scattered lateral punctures; with feeble though distinct strigulose ground sculpture. *Elytra* with irregular punctures not coarse or dense and not at all serially arranged; surface very uneven but without ground sculpture. *Abdomen* with sparse fine submuricate punctures and feeble transverse strigulose ground sculpture. Length, 7 mm.

Type locality.—Jamaica, Kingston.

Types.—Holotype in the Museum of Comparative Zoology, collected on August 27–29, 1934, by Dr. P. J. Darlington.

Records.—The following is the only record known to me:

Jamaica: Kingston (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the holotype.

Remarks.—This species is distinguished by the additional postantennal grooves and the sculpture of the head and pronotum. The pronotum is unusually slender.

I have received no record of its habits.

15. XANTHOLINUS IMPUNCTUS, new species

Description.—Piceocastaneous, pronotum rufocastaneous. *Head* about one-fourth longer than wide, slightly narrowed in front, sides feebly arcuate behind and broadly rounded into base; eyes not prominent, at less than three times their length from base; antennal grooves moderately impressed, straight, ending in a puncture; with an additional fine oblique groove from base of antenna; a slight depression for ocular groove; with umbilicate punctures (except along center) varying in size, separated by one to two times their diameter; with fine strigulose ground sculpture. *Pronotum* almost one-half longer than wide, widest at anterior angles, sides feebly converging behind and very feebly emarginate, base broadly rounded, angles traceable; dorsal series with 9 or 10 punctures, and with scattered lateral punctures; with very feeble strigulose ground sculpture. *Elytra* with irregular punctures not very coarse or dense, somewhat serial at sides; surface very uneven but without ground sculpture. *Abdomen* with sparse fine umbilicate punctures and feeble transverse strigulose ground sculpture. Length, 6½ mm.

Type locality.—Cuba, Soledad near Cienfuegos.

Types.—Holotype in the Museum of Comparative Zoology, collected in April 1936 by Dr. P. J. Darlington.

Records.—The following is the only record known to me:

Cuba: Soledad (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the holotype.

Remarks.—This species is only feebly distinguished from *jamaicensis* as outlined in the key. Additional differences are the emargination of the pronotum and the serial arrangement of certain elytral punctures.

I have received no record of its habits.

16. XANTHOLINUS ILLUCENS Erichson

Xantholinus illucens ERICHSON, 1839b, p. 315.—SCRIBA, 1855, p. 299.
Eulissus illucens (Erichson) BERNHAUER and SCHUBERT, 1914, p. 311.—LENG and MUTCHLER, 1914, p. 406.

Description.—Black, elytra testaceous, abdomen more or less piceous or castaneous. *Head* only one twenty-fourth longer than wide, scarcely enlarged posteriorly, basal angles marked by ridges; antennal grooves feeble, but with an additional pair of antennal grooves directed diagonally backward from the base of antennae; ocular grooves absent; without definite punctures except for scattered setigerous punctures and minute punctulae, but with coarse longitudinal scratches throughout, above and beneath. *Pronotum* one-fifth longer than wide, widest at anterior angles which are rounded, thence evenly narrowed to broadly rounded base; with a few large setigerous punctures and the minute punctulae. *Elytra* very coarsely but not densely punctate, the punctures more or less serial but not evenly arranged. *Abdomen* with rather sparse setigerous punctures and indistinct transverse strigulae. Length, 7 to 10 mm.

Type locality.—Colombia.

Types.—Either in the Hope Museum, Oxford, or the Zoologische Museum, Berlin.

Records.—The following are the records known to me:

Puerto Rico: Mayagüez, La Tortugueva, Coama, Rio Pedras, Anasco (Danforth collection), Carolina, Lajas (Wolcott collection), Utuado (Busck, in U.S.N.M.), Cayey (Cotton, in U.S.N.M.), Lajas, Guanica, Bayamon (Dozier, in U.S.N.M.), San Juan (Blackwelder stations 45, 51, 345), Guanica (Blackwelder station 356).

Montserrat: (Blackwelder station 267B).

Guadeloupe: Basse Terre (Blackwelder station 75), Grande Terre (Blackwelder station 86).

Dominica: (Blackwelder stations 246B, 257B).

St. Lucia: (Blackwelder stations 206, 210, 211B, 228).

St. Vincent: (Blackwelder stations 176B, 180; British Museum; Cameron collection).

Grenada: (British Museum; Cameron collection).

Tobago: (Blackwelder station 123).

Trinidad: (British Museum), River Estate (Blackwelder station 110); St. Joseph (Blackwelder station 130).

South America: COLOMBIA (Erichson, 1839b; Bernhauer and Schubert, 1914), VENEZUELA (Scriba, 1855; Cameron collection).

Specimens examined.—I have examined 18 examples in the British Museum, 7 in Dr. Cameron's collection, 12 in the collection of Stuart T. Danforth, 3 in the collection of the Rio Piedras Experiment Station, Puerto Rico, 7 in the United States National Museum, and 43 collected by me in 1935–37.

Remarks.—This species is readily distinguished by its size and its pale elytra. Examples from South America are not before me, but I have very little doubt that the West Indian specimens are the same.

I have collected this species from dung, manure, and the decomposing refuse from a grapefruit cannery. The specimen taken by Busck in Puerto Rico was from "under bark of bucare tree."

17. XANTHOLINUS HYDROCEPHALUS Fauvel

Xantholinus hydrocephalus FAUVEL, 1901, p. 83.—BERNHAUER and SCHUBERT, 1914, p. 304.—LENG and MUTCHLER, 1914, p. 406.

Description.—Piceous, head black, elytra dirty testaceous, abdomen fuscotestaceous about the base. *Head* very short and very broad in the male, suborbicular although attenuated in front, strongly dilated behind the eyes, base emarginate; strongly sparsely punctate at sides, median space smooth; space behind eyes narrow, elongate, and almost carinate, smooth. *Pronotum* one-third narrower than head, one-third longer than wide, moderately narrowed posteriorly, angles rounded; with two dorsal series of seven punctures and two lateral series of five punctures. *Elytra* longer than pronotum; sparsely and moderately deeply subserially punctate. *Abdomen* sparsely and very finely punctate. Length, 4¼ to 4½ mm. (From Fauvel.)

Type locality.—"Colombie: Bonda;—Trinidad."

Types.—Presumably in the collection of Blanche Rancin, Caën, France.

Records.—The following are the records known to me:

Trinidad: (Fauvel, 1901; Bernhauer and Schubert, 1914; Leng and Mutchler, 1914).

South America: COLOMBIA (Fauvel, 1901; Bernhauer and Schubert, 1914).

Specimens examined.—I have seen no examples of this species.

Remarks.—The original description is insufficient to identify this species with certainty, but I believe it to be distinct as separated in the key. I am unable to guess whether the Trinidad examples of Fauvel are the same as his Colombia ones.

I find no record of the habits of this species.

LXXVIII. Genus THYREOCEPHALUS Guérin

Thyreocephalus GUÉRIN, 1844, p. 10.
Linidius SHARP, 1876, p. 196.
Indoscitalinus HELLER, 1901, p. 5.
Indoscitalus EICHELBAUM, 1909, p. 165 (misspelling).
Dinoxantholinus HELLER, 1910, p. 7.
Thyroccephalus SCHEERPELTZ, 1933, p. 1318 (misspelling).

Genotypes.—*T. jekelii* Guérin (monobasic). Of *Indoscitalinus*, *I. albicornis* Heller (monobasic); of *Linidius*, *L. recticollis* Sharp (original designation); of *Dinoxantholinus*, *D. prodigiosus* Heller (monobasic).

Diagnosis.—Head not densely punctured, disk of pronotum not at all punctate; antennal grooves distinct, ocular grooves absent; antennae inserted moderately close together at front of head, basal segment over one-half as long as head, outer segments densely pubescent from the fourth joint; labrum small, with prominent outer angles; maxillary palpus moderately long, fourth segment longer than third; last segment of labial palpus slender; gular sutures united; neck one-third as wide as head; pronotum with margin double, the lines united in front; prosternum with a pair of sclerites in front of the sternite; elytral suture beveled; middle coxae widely separated; posterior coxae contiguous, "triangular"; first and second abdominal sternites absent (except possibly for a small lateral remnant of second); intersegmental membranes of abdomen marked with a pattern of angular areas in longitudinal bands.

Remarks.—This genus is distinguished by its united marginal pronotal lines and the sparse punctation from all other West Indian Xantholinini.

Only one species has been found in our region. It presents an unusual distribution, which can be accounted for only on the basis of inadequate collecting.

1. THYREOCEPHALUS SUBTILIS Sharp

Thyreocephalus subtilis SHARP, 1885, p. 499.—BERNHAUER and SCHUBERT, 1914, p. 313.

Description.—Black, shining; elytra with a bluish luster. *Head* suborbicular, basal angles scarcely traceable; eyes at less than three times their length from base; gular sutures united throughout their length; punctation composed of scattered large and somewhat umbilicate punctures and smaller usually elongate punctures between, the latter not dense and with minute punctulae between; anterior margin with feeble ground sculpture of lines. *Pronotum* less than one-half longer than wide, widest at anterior angles, feebly narrowed to posterior angles; disk entirely impunctate; shining. *Elytra* with somewhat indefinite but moderately large punctures obscured by dense coriaceous ground sculpture. *Abdomen* very sparsely, finely, submuricately punctate; with transverse strigulae throughout. Length, 14 mm.

Type locality.—Panama, Volcan de Chiriqui.

Types.—In the British Museum.

Records.—The following are the records known to me:

St. Vincent: (British Museum).
South America: VENEZUELA (Sharp, 1885), VENEZUELA, PERU, BRAZIL (Bernhauer and Schubert, 1914).
Central America: PANAMA (Sharp, 1885; Bernhauer and Schubert, 1914).

Specimens examined.—I have seen the type and four examples from the West Indies in the British Museum, as well as several examples from South America. One of the West Indian examples was borrowed for further study.

Remarks.—This species may be distinguished from others of the genus by the color and the punctation of the head and pronotum.

I find no record of its habits.

LXXIX. Genus PLOCHIONOCERUS Sharp

Plochionocerus SHARP, 1885, p. 471.
Ptochionocerus BORGMEIER, 1931, p. 360.

Genotype.—*Sterculia formicaria* Erichson=*Plochionocerus formicarius* (Erichson) (original designation).

Diagnosis.—Head and pronotum densely umbilicately punctate; antennae inserted close together at front of head, with clypeus slightly produced between them, outer segments pubescent from the fourth joint, basal segment one-half or more as long as head; antennal grooves distinct; labrum small, feebly emarginate; maxillary palpus short, fourth segment longer than third, glabrous except for tactile setae; last segment of labial palpus somewhat enlarged, securiform; gular sutures united; neck one-third as wide as head; margin of pronotum double, upper line very feeble in front; prosternum with a pair of large sclerites in front of the sternite; elytral suture somewhat beveled; middle coxae widely separated; posterior coxae contiguous, "triangular"; first abdominal sternite absent, second represented only by a small sclerite at sides; intersegmental membrane of abdomen marked with a pattern of angular areas in longitudinal bands.

Remarks.—This genus is known from South and Central America. It can be readily distinguished from all other Xantholinini known to me by the dense umbilicate punctures of the head *and* pronotum.

Only one species has been found in our region and this one only in Trinidad.

1. PLOCHIONOCERUS BRACHYPTERUS Sharp

Plochionocerus brachypterus Sharp, 1885, p. 471.—Bernhauer and Schubert, 1914, p. 315.

Description.—Black. *Head* oval, basal angles completely rounded; eyes at nearly four times their length from base; labrum feebly emarginate at middle; underside elevated at sides and middle; gular sutures united from near base; punctures distinctly umbilicate, very dense. *Pronotum* seven-twelfths as wide as long, widest at anterior third, thence parallel to completely rounded basal angles; with an impressed midline, one-third as wide as neck in front but narrowed posteriorly; rest punctured similarly to head. *Elytra* very densely punctate, the intervals convex but not united. (*Abdomen* finely, moderately densely, submuricately punctured. Length, 17 mm.)

Type locality.—Guatemala.

Types.—In the British Museum.

Records.—The following are the records known to me:

Trinidad: (Bryant, in British Museum), Blanchisseuse (Morrison, in U.S.N.M.).
Central America: Guatemala, Mexico, Honduras, Panama (Sharp, 1885; U.S.N.M.).

Specimens examined.—Besides the type series and other Central American specimens I have seen only one example in the British Museum and one in the United States National Museum.

Remarks.—The Trinidad specimen upon which the description is based is without abdomen, and the characters in parentheses were obtained from a Central American example. Although this species is not known from South America, it will almost certainly be found along the northern coast, since the Central American and Trinidad examples seem to be identical.

I find no record of the habits of this species.

LXXX. Genus LEPTACINUS Erichson

Leptacinus Erichson, 1839a, p. 429.
Xanthophius Motschulsky, 1859, p. 75.
Xanthophyus Gemminger and Harold, 1868, p. 607 (emendation).
Leptacinodes Casey, 1906, p. 369.
Leptacinius Wolcott, 1936, p. 45.

Genotypes.—*Leptacinus brevicornis* (Erichson) (designated by Duponchel, 1841). Of *Xanthophius*, *X. serpentarius* Motschulsky (monobasic); of *Leptacinodes*, *Staphylinus batychrus* Gyllenhal=*Leptacinus batychrus* (Gyllenhal)=*Leptacinodes batychrus* (Gyllenhal) (original designation).

Diagnosis.—Head and pronotum sparsely punctate; antennal grooves distinct; ocular grooves rather irregularly impressed; antennae inserted close together at front of head, basal segment about one-third as long as head, outer segments densely pubescent from fourth joint; labrum small, rather deeply emarginate; maxillary palpus short, fourth segment conical, slightly shorter than third; last segment of labial palpus slender; gular sutures united; neck about one-third as wide as head; pronotum with lateral margin double, the lines separate throughout; prosternum with a pair of large sclerites in front of sternite; elytral suture beveled; middle coxae moderately separated; posterior coxae contiguous, "triangular"; first and second abdominal sternites absent (except possibly for a small lateral remnant of the second); intersegmental membranes of abdomen marked with a pattern of angular areas in longitudinal bands.

Remarks.—This genus is distinguished principally by the structure of the maxillary palpi. It is represented in the West Indies by two species, of which only one is represented in my material.

KEY TO WEST INDIAN SPECIES OF LEPTACINUS

1. Head black, pronotum rufous, elytra and abdomen piceocastaneous, with outer apical diagonal half of elytra luteous---------- 2. parumpunctatus
Rufotestaceous, apex of elytra nigrescent------------------------ 1. eggersi

1. LEPTACINUS EGGERSI Bernhauer and Schubert

Leptacinus apicipennis Bernhauer, 1904b, p. 234.—Bernhauer and Schubert, 1914, p. 293.—Leng and Mutchler, 1914, p. 406. (Not Fairmaire and Germain, 1861.)
Leptacinus eggersi Bernhauer and Schubert, 1914, p. 293.—Leng and Mutchler, 1914, p. 406.

Description.—(From Bernhauer.) Rufotestaceous, apex of elytra nigrescent. *Head* much longer than wide, strongly widened behind; antennae strongly incrassate; finely and sparsely punctate except along the middle. *Pronotum* one-half longer than wide, somewhat narrower than elytra, somewhat narrowed behind; dorsal series with 7 to 9 punctures; laterally finely and sparsely irregularly punctate.

Elytra somewhat shorter than pronotum; finely and sparsely punctate. *Abdomen* very finely and sparsely punctate. Length, 2½ mm.

Type locality.—St. Thomas.

Types.—Presumably in the collection of Max Bernhauer.

Records.—The following is the only record known to me:

St. Thomas: (Bernhauer, 1904).

Specimens examined.—I have seen no examples of this species.

Remarks.—This species seems to be distinct from *parumpunctatus* by its small size, its coloration, the shape of the head and antennae, and the number of punctures in the dorsal pronotal series.

Bernhauer gives no indication whether the St. Thomas cited here is the West Indian or the West African one, but in another similar case (*Osorius eggersi*) the name has been accepted into our lists without question.

I find no other record of the habits of this species.

2. LEPTACINUS PARUMPUNCTATUS (Gyllenhal)

Xantholinus subimpressus DEJEAN, 1821, p. 23.
Staphylinus parumpunctatus GYLLENHAL, 1827, p. 481.
Gyrohypnus longicollis STEPHENS, 1829, p. 285.
Gyrohypnus parumpunctatus (Gyllenhal) MANNERHEIM, 1830, p. 33.
Xantholinus parumpunctatus (Gyllenhal) BOISDUVAL and LACORDAIRE, 1835, p. 414.
Leptacinus parumpunctatus (Gyllenhal) ERICHSON, 1839b, p. 335.
Leptacinus ampliventris DUVAL, 1854, p. xxxvii.
Xantholinus radiosus PEYRON, 1858, p. 421.
Leptacinus pallidipennis MOTSCHULSKY, 1858b, p. 206.
Leptacinus tricolor KRAATZ, 1859b, p. 110.
Leptacinus flavipennis KRAATZ, 1859b, p. 111.
Xantholinus amissus COQUEREL, 1860, p. 158.
Leptacinus amissus (Coquerel) FAUVEL, 1872, p. 375.
Leptacinus radiosus (Peyron) FAUVEL, 1872, p. 375.
Leptacinus breviceps WATERHOUSE, 1877, p. 24.
Leptacinus papuensis FAUVEL, 1878b, p. 242.
Leptacinus sardous FIORI, 1894, p. 94.
Leptacinus longicollis (Stephens) GANGLBAUER, 1895, p. 487. (Not LeConte, 1865.)
Leptacinus rubricollis REITTER, 1899, p. 157 (as variety).
Leptacinus fauveli CAMERON, 1922, p. 114 (as variety).
Leptacinus parampunctatus DONISTHORPE, 1937, p. 118 (misspelling).

Description.—Head black, pronotum rufous or rufopiceous, elytra pale testaceous and darkly clouded along sutural and scutellar margins, abdomen dark brown. *Head* nearly as wide as long, slightly expanded behind eyes, which are at about twice their length from base; antennal grooves moderately strong, generally punctate apically, ocular grooves irregular but distinct; gular sutures united at about the middle; with rather large and somewhat umbilicate punctures at the sides, vertex with only minute punctulae; without ground sculpture. *Pronotum* three-fourths as wide as long, widest in front, moderately narrowed posteriorly; discal series of five to seven punctures, lateral series of four, with few additional punctures. *Elytra* rather feebly and sparsely punctured, with one distinct longitudinal discal series. *Abdomen* sparsely but not very finely submuricately punctate. Length, 4 to 7 mm.

Type locality.—Sweden. Of *longicollis*, Suffolk, England; of *ampliventris*, "environs de Bercy" (France); of *radiosus*, "Taurus, au Kuleg. Boghaz" (Asia Minor); of *pallidipennis*, "Indes orientales"; of *tricolor*, "insula Ceylan et in India orientali"; of *flavipennis*, Ceylon; of *amissus*, "Mers-el-Kebir," Barbary; of *breviceps*, "S. E. Africa, Zambesi"; of *papuensis*, "Nouvelle-Guinee, Salvatti"; of *sardous*, "Cabras, in Sardegna"; of *rubricollis*, Sicily; of *fauveli*, Leeward side, St. Vincent.

Types.—In the Zoological University Museum, Uppsala. Of *longicollis*, *breviceps*, and *fauveli* in the British Museum; of *ampliventris*, presumably in the Musée National d'Histoire Naturelle, Paris; of *radiosus*, disposition unknown to me; of *pallidipennis*, presumably in the Zoological University Museum, Moscow; of *tricolor* and *flavipennis*, presumably in the Deutsche Entomologische Institut, Berlin; of *amissus*, probably in the Musée National d'Histoire Naturelle, Paris; of *papuensis*, presumably in the collection of Blanche Rancin, Caën, France; of *sardous*, probably in the Zoologische Museum, Berlin; of *rubricollis*, possibly in the Hungarian National Museum, Budapest.

Records.—The following are the records known to me:

Cuba: (Leng and Mutchler, 1914; Ganglbauer, 1895; U.S.N.M.).
Jamaica: Spanish Town (Blackwelder station 377).
Puerto Rico: Lajas, Yauco (Dozier, in U.S.N.M.).
St. Kitts: (Blackwelder station 302).
Antigua: (Blackwelder station 295).
Barbados: (Blackwelder stations 188, 189).
St. Vincent: (Cameron, 1922, as *fauveli*).
Grenada: (Cameron, 1922, as *fauveli*).
North America: (Fauvel, 1872).
Europe: (Gyllenhal, 1827, Erichson, 1839b; Fauvel, 1872).
Africa: Fauvel, 1872; Ganglbauer, 1895).
Asia: (Fauvel, 1872), PHILIPPINE ISLANDS (U.S.N.M.), CHINA (Cameron collection.)
India: (Cameron, 1932; Fauvel, 1903; Motschulsky, 1858; Kraatz, 1859).
Australia: (Ganglbauer, 1895).

Specimens examined.—From the West Indies I have seen 3 examples in the British Museum (as variety *fauveli*), 7 in the United States National Museum, and 13 collected by me in 1935–37.

Remarks.—This species is listed as cosmopolitan but has not been specifically recorded from South America or Central America. The only records from North America are indefinite and sweeping, and I have been unable to find any specimen from it that belongs to this species. The reference in the Bernhauer and Schubert catalog (and copied by Cameron, 1932) of *rubricollis* Casey to *rubricollis* Reitter is entirely an error in cataloging. The name was preoccupied when Casey used it but the two species are quite different.

My specimens were taken from dung and flying at dusk.

LXXXI. Genus LITHOCHARODES Sharp

Lithocharodes Sharp, 1876, p. 204.

Genotype.—L. fuscipennis Sharp (monobasic).

Diagnosis.—Head and pronotum not densely umbilicately punctate; antennal grooves feeble, ocular grooves absent; antennae inserted close together at front of head, basal segment one-half as long as head, outer segments densely pubescent from fourth joint; labrum very small, not much emarginate; fourth segment of maxillary palpus much shorter than third, conical; last segment of labial palpus very slender; gular sutures very approximate but not at all united; neck one-third as wide as head; pronotum with side margin double, the line separate throughout; prosternum with a pair of sclerites in front of the sternite; elytra with sutures beveled; middle coxae moderately separate; posterior coxae contiguous, "triangular"; first and second abdominal sternites absent; intersegmental membranes of abdomen marked with a pattern of angular areas in longitudinal bands; anterior tarsi not much dilated.

Remarks.—This genus is known only from the New World and principally from the Tropics. It is distinguished principally by the structure of the antennae and maxillary palpi.

I have examined 23 specimens of this genus from the West Indies and assign them to seven species, of which five appear to be new.

KEY TO WEST INDIAN SPECIES OF LITHOCHARODES

1.	Black (or more or less piceous) with apex of abdomen testaceous	2
	Rufocastaneous, or with head and elytra bicolored	5
2.	Head with rather dense coarse punctures except along midline	6. **trinitatis**
	Head with sparse and rather fine punctures	3
3.	Entirely black except for tip of abdomen	7. **unicolor**
	More or les piceous or rufescent	4
4.	Head and pronotum with very sparse and very fine punctures	4. **cavicola**
	Head and pronotum with moderately sparse and distinctly umbilicate punctures	3. **strigulata**
5.	Rufocastaneous throughout	6
	Head and elytra bicolored	5. **rambouseki**
6.	Head rather densely and not finely punctate	2. **cameroni**
	Head finely and sparingly punctate	1. **claviscapa**

1. LITHOCHARODES CLAVISCAPA (Cameron)

Somoleptus claviscapus CAMERON, 1922, p. 114.—SCHEERPELTZ, 1933, p. 1304.
Lithocharodes claviger CAMERON, MS.

Description.—Reddish brown, shining. *Head* oblong, scarcely widened behind; antennae unusually long, first segment considerably elongated for so small a species; very finely and sparingly punctured. *Pronotum* a little narrower than the head; finely and sparingly punctured. *Elytra* as long as the pronotum, exceedingly finely and sparingly punctured and pubescent. *Abdomen* finely and sparingly punctured and pubescent. Length, 3 mm. (From Cameron.)

Type locality.—Grenada, Mount Gay Estate.

Types.—Holotype in the British Museum, collected by H. H. Smith.

Records.—The following are the records known to me:

Grenada: (Cameron, 1922a; British Museum).
St. Vincent: (British Museum, as *ruficollis*).

Specimens examined.—I have seen only the type and two other examples in the British Museum.

Remarks.—I found the type rather badly broken but noted that it agreed with the (very general) characters mentioned in the original description except as to the length. Careful measurement with an ocular micrometer revealed the actual length as 3 mm. rather than 4 mm. as published.

The two specimens from St. Vincent in the British Museum were labeled *ruficollis* LeConte. They differ, however, from *ruficollis* in their less distinct antennal grooves, narrower epistoma, shallower punctures of the head, the evenly dispersed punctures of the pronotum, the coarser punctures of the elytra, and the ground sculpture of the head and abdomen.

Lack of specimens makes it difficult to include this species in the key or to guess its relationships. It is quite possible that some of our names in this genus will eventually be found to be synonyms.

I find no mention of the habits of this species.

2. LITHOCHARODES CAMERONI, new species

Description.—Rufous to rufotestaceous throughout. *Head* one-eighth longer than wide, widest posteriorly, base truncate; antennal grooves obsolescent, the epistoma narrow and rather long; ocular grooves absent; with sparse umbilicate punctures especially at sides, with punctulae and indefinite ground sculpture between. *Pronotum* one-third longer than wide, widest at anterior angles, thence fairly evenly narrowed to rounded basal angles; with smooth midline but rest evenly strewn with moderate punctures; without ground sculpture. *Elytra* with surface very uneven and rather coarsely punctate, the punctures not at all serial. *Abdomen* rather finely tuberculate; with confused ground sculpture. Length, 3 to 3½ mm.

Type locality.—Cuba, Cayamas, 15 miles west-northwest of Cienfuegos, province of Santa Clara.

Types.—Holotype and one paratype, U.S.N.M. No. 52439, collected by E. A. Schwarz.

Records.—The following are the records known to me:

Cuba: Cayamas (Schwarz, in U.S.N.M.).

Specimens examined.—I have seen only the two types in the United States National Museum.

Remarks.—This species is distinguished by the comparatively dense punctures of the head. It differs from *rambouseki* principally in not having the dark markings on the head and elytra.

I find no record of its habits.

3. LITHOCHARODES STRIGULATA, new species

Description.—Rufopiceous to pale piceocastaneous, last segment of abdomen testaceous. *Head* nearly one-half longer than wide, feebly expanded behind eyes, angles and base completely rounded; antennal grooves very feeble, straight and parallel; without ocular grooves; with moderately small and indistinctly umbilicate punctures usually separated by one to three times their diameter; with feeble reticulate ground sculpture. *Pronotum* three-sevenths longer than wide, widest at anterior two-fifths, rounded in front, sides distinctly converging to broadly rounded base; smooth median space not outlined by rows of punctures distinct from those at sides, these a little coarser than on head and usually separated by about their diameter; with strigulose ground sculpture. *Elytra* small, appressed, not extending past metathorax; with ordinary punctures not as coarse as on head separated by about twice their diameter; surface irregularly coriaceous. *Abdomen* with fine sparse submuricate punctures; with traces of transverse strigulose ground sculpture. Length, 4½ to 5½ mm.

Type locality.—Dominican Republic, Loma Rucilla and the mountains to the north; elevation 5,000 to 8,000 feet.

Types.—Holotype and three paratypes in the Museum of Comparative Zoology; three paratypes in the United States National Museum (No. 52524); collected in June 1938 by Dr. P. J. Darlington. (Paratypes partly from Loma de la Peña and Valle Nuevo.)

Records.—The following are the records known to me:

Hispaniola: HAITI, La Visité (Darlington, in M.C.Z.); DOMINICAN REPUBLIC, Loma Rucilla (Darlington, in M.C.Z. and U.S.N.M.), Loma de la Peña (Darlington, in M.C.Z.), Valle Nuevo (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the seven types and the two specimens mentioned below.

Remarks.—This species may be distinguished by the size of the pronotal punctures, by the reduced elytra, and by the shape of the pronotum.

The specimen from Haiti differs in the dense reticulate sculpture of the head and pronotum and other details. I hesitate to describe it as distinct because of the variation in these characters in the short series before me.

One of the Loma Rucilla examples differs in lacking all trace of ground sculpture on both the head and pronotum. I include it here with some doubt.

I have received no record of the habits of this species.

4. LITHOCHARODES CAVICOLA, new species

Description.—Dark piceocastaneous, base of elytra indefinitely testaceous. *Head* over one-fourth longer than wide, distinctly expanded behind the eyes, angles and base completely rounded; antennal grooves very feeble, diverging; without regular ocular grooves, but with a short groove from middle of each eye above continued across as a depression, dividing the vertex transversely; with very fine and not umbilicate punctures, usually separated by three to six times their diameter; without ground sculpture. *Pronotum* two-thirds longer than wide, widest at anterior third, front angles broadly rounded but apex not semicircular, sides feebly emarginately converging behind, angles and base broadly rounded; smooth median space not definitely limited, punctures fine but irregularly impressed, denser than on head; without ground sculpture. *Elytra* small but not appressed; with very indefinite and sometimes excavated punctures sparse and indistinct, surface irregular but without distinct ground sculpture. *Abdomen* with fine submuricate punctures rather numerous and somewhat transversely serial; without ground sculpture. Length, 4½ mm.

Type locality.—Trinidad, a cave in Aripo Valley, elevation about 2,600 feet.

Types.—Holotype in the Museum of Comparative Zoology; one paratype in the United States National Museum (No. 52525); collected by N. A. Weber on April 19, 1935.

Records.—The following is the only record known to me:

Trinidad: Aripo Valley (Weber, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the two types.

Remarks.—This species is distinct because of its fine sparse punctation, the shape of the pronotum, and the transverse depression of the head.

The types were found deep in a cave.

5. LITHOCHARODES RAMBOUSEKI, new species

Lithocharodes ramboustki Bierig, MS.

Description.—Rufous, marked with piceous as follows: A V-shaped area from the posterior part of the vertex to each eye, vaguely on the front of pronotum, the disk of the elytra, and each abdominal tergite. *Head* two-ninths longer than wide, somewhat expanded behind, the base feebly rounded; antennal grooves feeble, arcuate, the epistoma short; ocular grooves absent; with moderately large but not distinctly umbilicate punctures except on midline; without distinct ground sculpture on disk. *Pronotum* one-half longer than wide, widest in front, narrowed to posterior two-fifths, base broadly rounded; with smooth midline marked by rows of large punctures only a little closer together than those over the rest of the surface. *Elytra* with surface flat but finely coriaceous, with rather indistinct punctures not very sparse. *Abdomen* with fine submuricate punctures; without ground scultpure. Length, 5½ mm.

Type locality.—Cuba, Rio Almendares, province of Habana.

Types.—Holotype and one paratype, U.S.N.M. No. 52475, collected by Sr. Bierig and sent as cotypes (No. 52736), though apparently never published. Also one paratype in the Museum of Comparative Zoology.

Records.—The following are the records known to me:

Cuba: Rio Almendares (Bierig, in U.S.N.M.), Aspiro (Bierig, in U.S.N.M.), Soledad (Darlington, in M.C.Z.).

Specimens examined.—I have seen two examples sent several years ago by Sr. Bierig and one from the Museum of Comparative Zoology.

Remarks.—This species is very distinct by its markings, but I am not able to state the variability of these characters There must be additional specimens in the collection of Sr. Bierig.

I have no record of its habits.

6. LITHOCHARODES TRINITATIS, new species

Description.—Black to dark piceocastaneous, apex of abdomen paler. *Head* nearly one-half longer than wide, scarcely at all expanded behind the eyes, which are unusually large and separated from base by two and one-half times their length; base straight with angles moderately rounded; antennal grooves forming a parenthesis but obscured by strigulae; without ocular grooves; punctures moderate and distinctly umbilicate, often slightly elongated and genarally separated by about their diameter; without ground sculpture on the disk; punctures near clypeus anastomosing and obscured by strigulae and irregular ground sculpture. *Pronotum* about one-third longer than wide, widest at anterior angles, thence moderately narrowly, base and angles broadly rounded, front not semi-circular; smooth median space narrow, not definitely outlined, punctures finer than on head, not umbilicate, separated by one to three times their diameter; without ground sculpture. *Elytra* small but not appressed; punctures moderate but irregular, usually separated by less than their diameter; surface more or less coriaceous but without sculpture. *Abdomen* with very fine punctures obscured by irregular sculpture. Length, 3½ mm.

Type locality.—Trinidad, St. Augustine.

Types.—Holotype and one paratype in the Museum of Comparative Zoology; one paratype in the United States National Museum (No. 52526); collected on August 3, 1935, by N. A. Weber.

Records.—The following are the records known to me:

Trinidad: St. Augustine (Weber, in M.C.Z. and U.S.N.M.), Maracao Falls (Weber, in M.C.Z.).

Specimens examined.—I have seen only the three types.

Remarks.—This species is distinguished by the dense punctation of the head and by the shape of the antennal grooves.

I have received no record of its habits.

7. LITHOCHARODES UNICOLOR (Cameron)

Somoleptus unicolor CAMERON, 1922, p. 115.—SCHEERPELTZ, 1933, p. 1305.

Description.—Black, shining, posterior margin of last abdominal tergite piceotestaceous. *Head* (including the mandibles) subtriangular, a little widened behind the eyes, posterior angles rounded; punctures rather fine and not very dense, more sparing posteriorly. *Pronotum* a little narrower than head, longer than broad, widest at anterior angles, sides narrowed and a little sinuated posteriorly; with smooth median longitudinal space; rather finely and not densely punctate. *Elytra* finely, rather obsoletely, and not densely punctured. *Abdomen* finely but not densely punctured. Length, 4 mm. (From Cameron.)

Type locality.—Jamaica.

Types.—Unique type in collection of Dr. Cameron.

Records.—The following is the only record known to me:

Jamaica: (Cameron, 1922; Cameron collection).

Specimens examined.—I have examined briefly the type in Dr. Cameron's collection. No other examples are known to me.

Remarks.—This species is distinguished from *strigulata* only by its uniform black color. As this is largely a matter of lighting and individual use of terms, I should not be surprised to find they are the same. On the other hand, they may well be distinct by other characters as yet unrecorded. I am not now able to add anything to the original description.

I find no record of its habits.

LXXXII. Genus MICROLINUS Casey

Microlinus Casey, 1906, p. 372.

Genotype.—*Leptolinus pusio* LeConte=*Microlinus pusio* (LeConte) (monobasic).

Diagnosis.—Head and pronotum not densely umbilicately punctate; antennal grooves obsolete; antennae inserted close together at anterior margin of head, basal segment about one-half as long as head, outer segments densely pubescent from fourth joint; labrum very small, not distinctly emarginate; fourth segment of maxillary palpus much shorter than the third, conical; gular sutures united from near the front; neck scarcely one-fourth as wide as head; pronotum with side margin double, lines separate throughout; prosternum with a pair of sclerites in front of the sternite; elytral suture beveled; middle coxae not separate; posterior coxae contiguous, "triangular"; first and second abdominal sternites absent; intersegmental membranes of abdomen marked with a pattern of angular areas in longitudinal bands; anterior tarsi strongly dilated.

Remarks.—This genus has apparently not been reported since its description, since Col. Casey did not have examples of it and was unable to add to LeConte's description of the type species.

One example from Florida and ten from the West Indies are all that are now known beside the type. These all seem to be one species.

1. MICROLINUS PUSIO (LeConte)

Leptolinus pusio LeConte, 1880, p. 171.—Henshaw, 1881, p. 220.—Casey, 1906, p. 419.—Eichelbaum, 1909, p. 168.

Microlinus pusio (LeConte) Casey, 1906, p. 419.—Eichelbaum, 1909, p. 168.—Bernhauer and Schubert, 1914, p. 292.

Description.—Head rufopiceous, pronotum, elytra, and abdomen rufocastaneous, the abdomen sometimes picescent. *Head* one-sixth longer than wide, arcuately expanded behind the eyes, base straight; antennal grooves almost completely obsolete; ocular grooves absent; sparsely and moderately coarsely punctate at sides; without ground sculpture. *Pronotum* about one-third longer than wide, widest at anterior angles, scarcely narrowed to completely rounded base; smooth middle space outlined by two series of six to eight punctures, and with scattered punctures laterally; without ground sculpture. *Elytra* with moderately coarse but very feeble punctures, not distinctly serial; indistinctly coriaceous. *Abdomen* finely and not sparsely submuricately punctate, and with indistinct transverse strigulae. Length, 3 mm.

Type locality.—South Carolina (Columbia).

Types.—In the Museum of Comparative Zoology.

Records.—The following are the records known to me:

Jamaica: Kingston (Blackwelder station 378).

Trinidad: Mayaro Bay (Weber, in M.C.Z. and U.S.N.M.), St. Augustine (Darlington, in M.C.Z. and U.S.N.M.).

North America: SOUTH CAROLINA (LeConte, 1880; Casey, 1906), FLORIDA (Hubbard and Schwarz collection, in U.S.N.M.).

Specimens examined.—I have seen three specimens from Jamaica and one from Florida in the United States National Museum and seven from the Museum of Comparative Zoology.

Remarks.—I have been unable to distinguish the Jamaica and Trinidad specimens from the Florida example. None of these has been compared with the LeConte type, but the identification is probably correct. It can be recognized by the almost complete absence of antennal grooves on the head.

My specimens were collected under dead bark of logs.

LXXXIII. Genus STENOLINUS Bierig

Stenolinus BIERIG, 1937, p. 273.

Genotype.—*S. macrothrichus* Bierig (monobasic and original designation).

Diagnosis.—Head and pronotum not densely umbilicately punctate; antennal grooves parallel, ocular grooves present, oblique; labrum somewhat expanded, with a narrow median emargination; fourth segment of maxillary palpus much shorter than third, very slender and parallel, third segment inflated and somewhat depressed; last segment of labial palpus similar to maxillary; gular sutures converging to middle, thence parallel and approximate; neck one-sixth as wide as head; elytral suture beveled; prosternum with a large anterior sclerite; middle coxae narrowly separated; posterior coxae contiguous. (From Bierig.)

Remarks.—The original diagnosis gives characters sufficient to place this genus in the key, but other characters of importance are omitted. I can only guess at the position of the genus in our classification.

Only one species is known, and no specimens have been available to me.

1. STENOLINUS MACROTHRICHUS Bierig

Stenolinus macrothrichus BIERIG, 1937, p. 257, figs. 1–3.

Description.—Rufotestaceous, elytra gradually nigrescent in apical two-thirds. *Head* one-half longer than wide, the basal angles narrowly rounded, sides feebly arcuate and somewhat converging anteriorly; the eyes occupying a fourth of the sides; antennae as long as head; with fine obsolete sparse punctures, lacking along the middle; the intervals with ground sculpture. *Pronotum* as long as head but distinctly narrower, the sides subemarginate and scarcely diverging to front, the anterior angles narrowly rounded, the posterior broadly, the base feebly arcuate; with six posteriorly diverging rows of 9 to 10 fine punctures, and a few others anterolaterally. *Elytra* a little longer than pronotum, somewhat dilated behind, the humeri prominent, the sides straight; with punctures stronger, coarser, regular and not dense. *Abdomen* with punctures very fine and sparse. Length, 3 mm. (From Bierig.)

Type locality.—Cuba, El Rangel, Sierra del Rosario.

Types.—A unique female in the collection of Alexander Bierig.

Records.—The following is the only record known to me:

Cuba: El Rangel (Bierig, 1937).

Specimens examined.—I have seen no examples of this species.

Remarks.—The relationships of this species are unknown to me except from the remarks of Sr. Bierig and the fact that it does key out to *Oligolinus* (which is the true name for the *Metoponcus* mentioned by Bierig).

The type was found beneath loose bark of a fallen mastic tree (Almácigo).

LXXXIV. Genus OLIGOLINUS Casey

Oligolinus Casey, 1906, p. 372.

Genotype.—*Metoponcus floridanus* LeConte=*Oligolinus floridanus* (LeConte) (monobasic and original designation).

Diagnosis.—Head very sparsely punctured; antennal grooves obsolete; ocular grooves more or less distinct; antennae inserted close together at front of head, basal segment not over one-third as long as head, outer segments not densely pubescent; labrum very small, not distinctly emarginate; maxillary palpus moderately long, fourth segment much shorter than third, conical; fourth segment of labial palpus slender; gular sutures obsolete; neck generally much less than one-fourth as wide as head; lateral margin of pronotum double but the lines united near middle on under side; prosternum with a sclerite in front of sternite; elytral suture beveled; middle coxae narrowly separated; posterior coxae narrowly separated, "triangular"; first and second abdominal sternite absent; intersegmental membrane of abdomen marked with a pattern of angular areas in longitudinal bands.

Remarks.—This genus has been confused in America with *Metoponcus* Kraatz. It is restricted to tropical and subtropical America (*leucocnemis* from the Orient does not belong here). It is distinguished from other American genera by the obsolete gular sutures. Although slight impressions are visible on the surface, microscope preparations show the sutures to be entirely absent.

I have examined 35 specimens from the West Indies and assign them to 5 species, 3 of which are apparently new.

KEY TO WEST INDIAN SPECIES OF OLIGOLINUS

1.	Head strongly margined at sides beneath	2
	Head not margined at sides beneath	4
2.	Pronotum with at least two pairs of discal punctures	3
	Pronotum with one pair of discal punctures	3. filarius
3.	Head and pronotum black (or at least darker than elytra).	4. testaceipennis
	Head and pronotum rufous, elytra at least in part black or piceous.	5. variabilis
4.	Pronotum with at least two pairs of discal punctures	2. darlingtoni
	Pronotum with one pair of discal punctures	1. hubbardi

1. OLIGOLINUS HUBBARDI, new species

Description.—Rufous, more or less picescent in parts, elytra piceotestaceous, abdomen more or less testaceous at base. *Head* one-fourth longer than wide, becoming slightly wider behind eyes, slightly prolonged at middle posteriorly; antennal grooves entirely obsolete, ocular grooves rather well developed; underside not margined by ridge or depression; with a very few large punctures at sides but vertex impunctate; with indistinct longitudinal strigulae. *Pronotum* nearly one-third longer than wide, widest in anterior third, rapidly narrowed to middle and thence straight to rounded basal angles; with a single pair of discal punctures and a very few lateral ones; with indistinct strigulae not always longitudinal. *Elytra* with surface very uneven but not distinctly punctate, except for two or three large setigerous punctures; without distinct ground sculpture. *Abdomen* impunctate except for a few large setigerous punctures; without distinct ground sculpture. Length, 5 mm.

Type locality.—Montserrat.

Types.—Holotype and one paratype, U.S.N.M. No. 52437, collected by H. G. Hubbard on March 22, 1894.

Records.—The following is the only record known to me:

Montserrat: (Hubbard, in U.S.N.M.).

Specimens examined.—I have seen only the two types.

Remarks.—This species is distinguished by the complete absence of margining on the underside of the head and the single pair of discal pronotal punctures.

I have no record of its habits.

2. OLIGOLINUS DARLINGTONI, new species

Description.—Black, pronotum rufotestaceous becoming infuscate apically, base of elytra feebly rufescent, basal two tergites of abdomen testaceous, abdomen sometimes castaneous, basal segments sometimes picescent. *Head* from approximately as wide as long to one-third longer than wide, ovate with front truncate or oblong with corners rounded; antennal grooves completely obsolete; ocular grooves obsolete near eyes, rather feeble on vertex; not margined or ridged at sides above or below; with a very few scattered punctures of various sizes; with very fine but dense and distinct reticulate ground sculpture. *Pronotum* three-fifths longer than wide; widest at anterior two-fifths; sides distinctly emarginate behind; with four pairs of discal punctures, the basal pair sometimes missing; midline briefly canaliculate at base; without distinct ground sculpture but with traces of same type as on head. *Elytra* impunctate except at margins, coriaceous but without other sculpture. *Abdomen* almost impunctate except for marginal setiferous punctures; with only traces of ground sculpture. Length, 6½ to 7½ mm.

Type locality.—Dominican Republic, Loma Rucilla and the mountains to the north; elevation 5,000 to 8,000 feet.

Types.—Holotype and five paratypes in the Museum of Comparative Zoology; four paratypes in the United States National Museum (No. 52527); collected in June 1938 by Dr. P. J. Darlington. (Part of the paratypes are from the other localities below.)

Records.—The following are the records known to me:

Hispaniola: Dominican Republic, Loma Rucilla (Darlington, in M.C.Z. and U.S.N.M.), Valle Nuevo (Darlington, in M.C.Z. and U.S.N.M.), Loma Vieja (Darlington, in U.S.N.M.).

Specimens examined.—I have seen only the 10 types.

Remarks.—The differences in the size and shape of the specimens appear to be sexual. The species is readily recognized by its bright colors and their arrangement as well as by the four pairs of discal pronotal punctures and the dense sculpture of the head.

I have received no record of the habits of this species except that the specimens were taken in "cloudforest."

3. OLIGOLINUS FILARIUS (Erichson)

Leptacinus filarius Erichson, 1839b, p. 334.—Lacordaire, 1854, p. 69.—Kraatz, 1858, p. 652.—Sharp, 1876, p. 206; 1885, p. 503.

Metoponcus filarius (Erichson) Kraatz, 1856, p. 652.—Sharp, 1876, p. 206; 1885, p. 503.

Oligolinus filarius (Erichson) Bernhauer and Schubert, 1914, p. 291.

Description.—Rufopiceous throughout. *Head* about one-fourth larger than wide, scarcely expanded posteriorly, not prolonged at middle posteriorly; antennal grooves completely obsolete, ocular grooves very irregular but distinct; underside margined with a distinct ridge and a densely sculptured submarginal longitudinal depression; with a few large setigerous punctures laterally, but vertex impunctate; with fine longitudinal strigulae. *Pronotum* two-fifths longer than wide; with a single pair of large discal punctures, and two or three lateral punctures; midline vaguely canaliculate posteriorly; with strigulae not always longitudinal. *Elytra* with surface very irregular, with a few distinguishable punctures; but without ground sculpture. *Abdomen* with a very few setigerous punctures; without ground sculpture. Length, 5 mm.

Type locality.—Colombia.

Types.—Either in the Hope Museum, Oxford, or the Zoologische Museum, Berlin.

Records.—The following are the records known to me:

St. Vincent: (British Museum).

South America: Colombia (Erichson, 1839b; Bernhauer and Schubert, 1914; Sharp, 1885), Brazil (Sharp, 1876; 1885).

Central America: Guatemala, Nicaragua (Sharp, 1885; British Museum).

Specimens examined.—I have seen only the two West Indian specimens examined in the British Museum, besides the series from Central America. One of the former was borrowed for further study.

Remarks.—The West Indian examples seem to be the same as the Central American ones. The distinguishing feature (at least of the West Indian examples) is the strong margining of the underside of the head. I am not certain whether this is equally true of the Central and South American ones.

One of the West Indian examples in the British Museum is labeled "Apr. 29. lot 14. under bark. 800 ft. open field."

4. OLIGOLINUS TESTACEIPENNIS (Fauvel)

Leptacinus testaceipennis Fauvel, 1863, p. 431.—Leng and Mutchler, 1914, p. 406.—Bierig, 1931, p. 428.

Leptacinus pallidipennis Chevrolat, MS.—Fauvel, 1863, p. 431. (Not Motschulsky, 1858.)

Oligolinus testaceipennis (Fauvel) Bernhauer and Schubert, 1914, p. 291.—Leng and Mutchler, 1914, p. 406.

Metoponcus testaceipennis (Fauvel) Bierig, 1931, p. 428.—Scheerpeltz, 1933, p. 1299.

Description.—Rufous, sometimes slightly picescent especially on the abdomen, elytra testaceous. *Head* nearly one-fourth longer than wide, scarcely wider behind the eyes, truncate at base; antennal grooves represented only by two round depressions; ocular grooves distinct and long; under surface margined by distinct ridges at sides, but with dense and fine scaly ground sculpture throughout;

above with a few large punctures even on vertex and with fine punctures scattered among the dense longitudinal strigulae. *Pronotum* about one-half longer than wide, widest in anterior third, feebly narrowed to basal third; with two pairs of discal punctures forming a square, and with two or three lateral punctures; with fine strigulae not always longitudinal. *Elytra* with a very few large setigerous punctures and with traces of smaller punctures over the very uneven surface; without ground sculpture. *Abdomen* with a few setigerous punctures; with sparse transverse strigulae. Length, 5 to 6 mm.

Type locality.—Cuba.

Types.—Presumably in the collection of Blanche Rancin, Caën, France.

Records.—The following are the records known to me:

Cuba: (Fauvel, 1863; Bernhauer and Schubert, 1914), Cayamas (Schwarz, in U.S.N.M.), Loma del Gato, Cobre Range, Oriente (Darlington, in M.C.Z.), Buenos Aires, Trinidad Mountains (Darlington, in M.C.Z.), Punta Brava (Bierig, in U.S.N.M.).

Hispaniola: HAITI, Diquini (Mann, in M.C.Z.); DOMINICAN REPUBLIC, Mount Diego de Ocampo (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen eight examples in the United States National Museum and six from the Museum of Comparative Zoology.

Remarks.—These specimens seem to be properly identified with Fauvel's species. It is distinguished by the margining of the underside of the head, the absence of the submarginal groove, and the sculpture of the under surface.

Sr. Bierig has transferred this species to the genus *Metoponcus*. This must have been done without reference to Casey's remarks (1906, p. 360) on this genus and without examination of the genotype (*brevicornis* Erichson), since either of these would have called attention to the unusual structure of the epistoma between the bases of the antennae. This is quite sufficient to separate the New World species, some of which were placed by Casey in *Oligolinus* and one of which has since been placed in *Stenolinus* by Bierig. *Metoponcus* in the Old World sense has not yet been found in the New World.

Bierig records this species (as larvae) from "unter loser, feuchter und mulmiger Rinde gefallter Baume."

5. OLIGOLINUS VARIABILIS, new species

Description.—Head and pronotum rufous, elytra black (or piceous) with base irregularly testaceous, abdomen piceous with basal two and apical two segments testaceous or castaneous. *Head* nearly one-fourth longer than wide, slightly enlarged behind with basal angles broadly rounded; antennal grooves almost completely obsolete; ocular grooves distinct though obsolescent near the eyes; with a distinct marginal ridge at sides beneath; with a very few scattered moderate punctures at the sides; with minute punctulae throughout and fine strigulose ground sculpture. *Pronotum* about one-half longer than wide, widest at anterior third; sides scarcely emarginate behind; with two pairs of large discal punctures; midline briefly canaliculate at base; with punctulae and sculpture as on head. *Elytra* almost impunctate except at margins; somewhat coriaceous but not otherwise sculptured. *Abdomen* almost impunctate except for marginal setigerous punctures; with fine but distinct transverse strigulose ground sculpture. Length, 6 to 6½ mm.

Type locality.—Haiti, La Visité and vicinity in the La Selle Range; elevation 5,000 to 7,000 feet.

Types.—Holotype and two paratypes in the Museum of Comparative Zoology; two paratypes in the United States National Museum (No. 52528); collected on September 16–23, 1934, by Dr. P. J. Darlington. (Paratypes from other Haitian localities as below.)

Records.—The following are the records known to me:

Cuba: Mountains north of Imias, Oriente (Darlington, in M.C.Z. and U.S.N.M.).
Hispaniola: HAITI, La Visité (Darlington, in M.C.Z. and U.S.N.M.), Furcy (Mann, in M.C.Z.), Roche Croix, Massif de La Hotte (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the five types and the two specimens from Cuba.

Remarks.—There is some variation in the extent of the dark areas of the abdomen, but the species can be recognized by its coloring and the presence of the marginal ridges behind the eyes.

I have received no record of its habits.

Subfamily TACHYPORINAE

This subfamily is represented in the collections before me by relatively few species but by a very large number of individuals. Certain species of *Coproporus* are exceedingly abundant on some of the southern islands, as well as in South and Central America.

The group is not distinguished by any outstanding morphological feature but rather by a combination of characters as used in the key. Its members are usually readily recognizable by their general appearance.

KEY TO WEST INDIAN GENERA OF TACHYPORINAE

1. Head strongly margined beneath the eyes: hypostomal suture present, coronal suture absent__________________________________ LXXXVIII. Bryoporus
   Head not margined beneath the eyes__________________________________ 2
2. Hypostomal and anterior part of coronal sutures present_______________ 3
   Hypostomal and coronal sutures absent__________ LXXXV. Leucoparyphus
3. Body without dense vestiture_____________________ LXXXVI. Coproporus
   Body with dense and fine vestiture________________ LXXXVII. Conosomus

LXXXV. Genus LEUCOPARYPHUS Kraatz

Leucoparyphus KRAATZ, 1857, p. 393.
Cilea DUVAL, 1857, p. 25.
Astictus THOMSON, 1861, p. 153. (Published as a synonym of *Cilea*.)

Genotypes.—*Staphylinus silphoides* Linnaeus=*Leucoparyphus silphoides* (Linnaeus) (designated here). Of *Cilea*, *Staphylinus silphoides* (Linnaeus)=*Cilea silphoides* (Linnaeus) (designated here); of *Astictus* (a stillborn synonym), the same as *Cilea*.

Diagnosis.—Head short and somewhat deflected, not margined beneath the eyes; hypostomal and coronal sutures not visible; antennae 11-segmented, filiform, inserted at sides of head close to eyes, outer segments pubescent from fourth joint; labrum transverse; maxillary palpus filiform, third segment small; gular sutures widely separated; pronotum extended beneath body; front coxae very large, exserted; middle coxae narrowly separated; posterior coxae contiguous, expanded laterally beneath the femora; abdomen margined, first and second sternites absent; tarsi 5-segmented.

Remarks.—This is a very small genus related to *Tachyporus* and more distantly to *Coproporus*. It contains several local species and one cosmopolitan one. The latter is the only one known from the West Indies.

1. LEUCOPARYPHUS SILPHOIDES (Linnaeus)

Staphylinus silphoides LINNAEUS, 1767, p. 684.
Oxyporus suturalis PANZER, 1794, n. 18.
Tachinus suturalis (Panzer) GRAVENHORST, 1802, p. 144.
Tachinus marginalis GRAVENHORST, 1802, p. 192.
Tachyporus marginalis Gravenhorst, GRAVENHORST, 1802, p. 193.
Tachyporus suturalis (Panzer) GRAVENHORST, 1806, p. 13.
Tachyporus limbatus GRAVENHORST, 1806, p. 12.
Tachinus silphoides (Linnaeus) GYLLENHAL, 1810, p. 267.
Tachinus geminatus RANDALL, 1838, p. 39.
Tachinus pictus ERICHSON, 1839b, p. 246.
Leucoparyphus silphoides (Linnaeus) KRAATZ, 1857a, p. 395.
Cilea silphoides (Linnaeus) DUVAL, 1857, p. 25.
Cilea suturalis (Panzer) DUVAL, 1857, p. 63.
Cilea marginalis (Gravenhorst) DUVAL, 1857, p. 63.
Cilea limbatus (Gravenhorst) DUVAL, 1857, p. 63.
Leucoparyphus marginicollis KRAATZ, 1857, p. 394.
Leucoparyphus limbifer MOTSCHULSKY, 1858, p. 222.
Cilea geminata (Randall) FAUVEL, 1872, p. 592.
Leucoparyphus suturalis (Panzer) GANGLBAUER, 1895, p. 336.
Leucoparyphus marginalis (Gravenhorst) GANGLBAUER, 1895, p. 336.
Leucoparyphus limbatus (Gravenhorst) GANGLBAUER, 1895, p. 336.
Leucoparyphus geminatus (Randall) GANGLBAUER, 1895, p. 336.
Cilea picta (Erichson) FAUVEL, 1904, p. 61.
Leucoparyphus pictus (Erichson) BERNHAUER and SCHUBERT, 1916, p. 494.
Leucoparyphus koreanus BERNHAUER, 1935, p. 48.

Description.—Head black, pronotum piceous with lateral margins narrowly testaceous, elytra testaceous with base, post-humeral margin, and a large discal spot piceous, abdomen piceocastaneous. *Head* not punctate but distinctly transversely strigulose. *Pronotum* not distinctly punctate, but strigulose as head and with minute punctulae. *Elytra* not very distinctly punctate but finely and irregularly pitted; without lateral concavity. *Abdomen* with moderately dense punctures obscured by irregular strigulose sculpture. *Male*, seventh sternite with two rounded lobes forming a median subsemicircular emargination; eighth sternite with a sinuately triangular emargination about as deep as wide, the posterior angles prolonged and bearing long black setae similar to those of the other segments, and with another pair of setigerous lobes at the sides and anteriorly on this segment; eighth tergite divided into six slender lobes, the middle two much more slender and separated only halfway to base and bearing short setae. *Female*, eighth sternite with six slender lobes, the middle triangular and longer; eighth tergite with six slender lobes, the middle pair more slender and longer and bearing short setae. Length, 2 to 3 mm.

Type locality.—"Europa." Of *marginalis*, "America septentr."; of *geminatus*, Brookline, Mass.; of *limbatus*, Paris; of *pictus*, Madagascar; of *suturalis*, Dresden; of *limbifer*, "Indes orientales"; of *marginicollis*, Ceylon; of *koreanus*, Korea.

Types.—Probably in the Uppsala Museum. Of *marginalis*, *limbatus*, and *pictus*, probably in the Zoologische Museum; of *suturalis*, not known; of *geminatus*, in the Boston Society of Natural History; of *limbifer*, probably in the Zoological University Museum, Moscow; of *marginicollis*, in the Deutsche Entomologische Institute; of *koreanus*, presumably in the collection of Dr. Max Bernhauer.

Records.—The following are the records known to me:

Puerto Rico: Salinas (Blackwelder station 60).
St. Thomas: (Hamilton, 1894).
Guadeloupe: Basse Terre (Blackwelder station 75).
Barbados: (Blackwelder station 203).
St. Vincent: (Blackwelder station 172; British Museum).
Grenada: (British Museum; U.S.N.M.).
Trinidad: Port of Spain (Blackwelder station 130).
North America: (Gravenhorst, 1802; Fauvel, 1872; etc.).
Europe and Asia: FRANCE, SWEDEN, GERMANY, BELGIUM, DENMARK, PERSIA, ANNAM, BURMA, INDIA, COCHIN-CHINA, JAVA, SUMATRA, LOMBOK, CELEBES, TIMOR, JAPAN, EAST INDIES (Fauvel, 1872; Motschulsky, 1858; Fauvel, 1904; Kraatz, 1857, etc.).
Africa: MADEIRA, CAPE VERDES, BARBARIE, ABYSSINIA, MAURICE, MADAGASCAR (Fauvel, 1872; Erichson, 1839b).

Specimens examined.—I have seen from the West Indies five examples in the British Museum, four in the United States National Museum, and seven collected by me during 1935–37.

Remarks.—This nearly cosmopolitan species is readily recognized at a glance by its color pattern. The male characters also are distinctive among West Indian Tachyporinae. The specimens from the islands show very little variation.

My specimens were all taken in dung or manure.

LXXXVI. Genus COPROPORUS Kraatz

Coproporus Kraatz, 1857, p. 399.
Erchomus Motschulsky, 1858, p. 218.
Subgenus *Paracoproporus* Bernhauer, 1917c, p. 41.

Genotypes.—*Tachinus rutilus* Erichson = *Coproporus rutilus* (Erichson) (designated by Blackwelder, 1938). Of *Erchomus*, *Erchomus sanguinolentus* Motschulsky (designated by Blackwelder, 1938); of *Paracoproporus*, *Coproporus* (*Paracoproporus*) *grandicollis* Bernhauer (monobasic).

Diagnosis.—Head very short, not distinctly margined beneath the eyes; antennae inserted at the sides of the head close to the eyes, 11-segmented, outer segments densely pubescent from the fourth joint; hypostomal suture complete, anterior part of coronal suture present; labrum transverse; fourth segment of maxillary palpus longer than the third, conical; gular sutures separated; anterior coxal cavities open; front coxae very large, exserted; posterior coxae contiguous, "transverse," expanded laterally and caudally under the femora; first and second abdominal sternites absent; tarsi 5-segmented, the first segment of posterior tarsi moderate or short.

Remarks.—This rather large genus is distributed throughout the world, but is especially developed in tropical regions. It is readily recognizable by its convex form and triangular or retracted abdomen.

I have examined 2,526 specimens from the West Indies. They belong to 11 species, of which 4 are new.

KEY TO WEST INDIAN SPECIES OF COPROPORUS

1.	Elytra more or less impressed at sides	2
	Elytra at most with margin recurved	7
2.	Pronotum relatively coarsely punctate	**11. buscki**
	Pronotum not or minutely punctate	3
3.	Elytra distinctly punctate	**10. rutilus**
	Elytra not or minutely punctate	4
4.	Apex of elytra and sides of pronotum paler	5
	Not as above	6
5.	Apical third of elytra and posterior margin of pronotum abruptly pale.	**9. pulchellus**
	Narrow margin of elytra indefinitely paler; base of pronotum not paler.	**8. ebonus**
6.	Pronotum testaceous, strigulose	**7. flavicollis**
	Pronotum piceous, not strigulose	**6. cacao**

7. Elytra distinctly (sometimes irregularly) punctate ---------- 8
   Elytra only very minutely punctulate ---------- 10
8. Pronotum distinctly strigulose ---------- 9
   Pronotum not strigulose ---------- 2. apicalis
9. Elytra strigulose ---------- 3. hepaticus
   Elytra not strigulose ---------- 1. sharpi
10. Pronotum and elytra strigulose ---------- 5. weberi
   Pronotum and elytra not at all strigulose ---------- 4. trinitatis

1. COPROPORUS SHARPI Cameron

Coproporus sharpi CAMERON, 1922, p. 123.—SCHEERPELTZ, 1934, p. 1518.

Description.—Head black, pronotum testaceous, sometimes clouded on the disk, elytra testaceous more or less clouded apically, abdomen testaceous generally clouded at base. *Head* not distinctly punctate but with minute punctulae and transverse strigulae. *Pronotum* not distinctly punctate but irregularly strigulose and with minute punctulae. *Elytra* without concavity at sides except for a submarginal groove; distinctly punctate but the punctures irregular and more or less composite; without distinct strigulae. *Abdomen* with punctures obscured by irregular strigulae. *Male*, eighth sternite with a large triangular emargination about one-half wider than deep; eighth tergite with four blunt teeth separated by rounded notches. *Female*, eighth tergite with four slender but triangular processes, the middle a little longer and separated to base. Length, 1½ to 2¼ mm.

Type locality.—St. Vincent.

Types.—In the British Museum.

Records.—The following are the records known to me:

Antigua: (H. E. Box, as Blackwelder station 444Q).
Montserrat: (Hubbard, in U.S.N.M.).
St. Lucia: (Blackwelder station 226).
St. Vincent: (Cameron, 1922; British Museum).

Specimens examined.—I have seen two examples (including the type) in the British Museum, eight in the United States National Museum, six collected by Dr. H. E. Box, and one collected by me in April 1936.

Remarks.—This species is the smallest of those having the sides of the elytra unimpressed. It can also be distinguished by the irregular elytral punctation.

I have seen one specimen from the Museum of Comparative Zoology, collected by Dr. W. M. Mann in Haiti, that keys out to this species. It is 3 mm. long but differs in no other respect I can find except color. I believe it to be a distinct species but will leave it till more specimens are available.

My specimens were taken in cocoa pods and "from inside of scarlet bracts of a large *Heliconia*."

2. COPROPORUS APICALIS (Erichson)

Tachinus apicalis Erichson, 1839b, p. 250.—Lacordaire, 1854, p. 55.—DuVal, 1857, p. 33.

Coproporus apicalis (Erichson) Bernhauer and Schubert, 1916, p. 489.

Erchomus apicalis (Erichson) Leng and Mutchler, 1914, p. 407.—Wolcott, 1924, p. 79; 1936, p. 198.

Description.—Piceous with margins pale to rufopiceous with pronotum and elytra rufous. *Head* not distinctly punctate or strigulose but with very minute punctulae. *Pronotum* not distinctly punctate or strigulose but with minute punctulae. *Elytra* not flattened or concave at sides, except for a narrow stria along the upturned margin; with very distinct but rather irregular punctures separated by about twice their diameter; without strigulae. *Abdomen* not very distinctly punctate but irregularly strigulose. *Male*, eighth sternite with a large rounded triangular notch about one-half wider than deep; eighth tergite quadridentate, the middle pair of teeth acute and not widely separated. *Female*, eighth tergite with six slender lobes, the middle four much longer, the two middle deeply separated. Length, 1¾ to 2¼ mm.

Type locality.—Puerto Rico.

Types.—Either in the Hope Museum, Oxford, or the Zoologische Museum, Berlin.

Records.—The following are the records known to me:

Cuba: Soledad (Leavitt, in M.C.Z. and U.S.N.M.), Loma del Gato, Oriente (Darlington, in M.C.Z.), Pico Turquino, (Darlington, in U.S.N.M.).

Jamaica: Trinityville (Blackwelder station 428), Kingston (Blackwelder station 1D), Troy (Blackwelder station 409), Balaclava (Blackwelder station 403).

Hispaniola: Haiti, northeast foothills of La Hotte Range (Darlington, in M.C.Z.), Ennery (Darlington, in M.C.Z. and U.S.N.M.), Camp Perrin (Darlington, in M.C.Z.), Étang Lachaux (Darlington, in M.C.Z.); Dominican Republic, Sánchez (Darlington, in M.C.Z. and U.S.N.M.), foothills south of Santiago (Darlington, in M.C.Z. and U.S.N.M.).

Puerto Rico: (Erichson, 1839b, DuVal, 1857).

Specimens examined.—I have seen 16 examples from the Museum of Comparative Zoology and 6 specimens collected by me during 1935–37.

Remarks.—This species is distinguishable by its punctate elytra, smooth pronotum, and unimpressed elytral margin.

My examples were taken on rotting mango fragments and flying at dusk.

3. COPROPORUS HEPATICUS (Erichson)

Tachinus hepaticus Erichson, 1839b, p. 249.—Lacordaire, 1854, p. 55.

Tachinus convexus Erichson, 1839b, pp. 248, 249.—Lacordaire, 1854, p. 55.—Fauvel, 1863, p. 429.

Coproporus convexus (Erichson) Fauvel, 1863, p. 429.—Leng and Mutchler, 1914, p. 407.—Bernhauer and Schubert, 1916, pp. 489, 490.—Scheerpeltz, 1933, p. 1516.—Blackwelder, 1938, p. 8.

Coproporus ignavus Sharp, 1876, p. 87; 1883, p. 305.—Bernhauer and Schubert, 1916, p. 490.—Blackwelder, 1938, p. 8.

Erchomus inflatus Horn, 1877, p. 107.—Henshaw, 1898, p. xliii.—Fall and Cockerell, 1907, p. 153.—Leng, 1920, p. 111 (as synonym of *convexus*).—Blackwelder, 1938, p. 7.

Erchomus ignavus (Sharp) Sharp, 1883, p. 305.

Erchomus convexus (Erichson) Sharp, 1883, p. 306.—Henshaw, 1898, p. xliii.—Hubbard, 1899, p. 2 (suppl.).—Leng, 1920, p. 111.

Erchomus hepaticus (Erichson) Villada, 1901, p. 28.

Coproporus inflatus (Horn) Bernhauer and Schubert, 1916, p. 490.—Scheerpeltz, 1933, p. 1516.—Blackwelder, 1938, p. 7.

Coproporus hepaticus (Erichson) Scheerpeltz, 1934, p. 1516.

Description.—Black with abdomen somewhat rufescent (frequently largely rufescent, especially on the elytra). *Head* not distinctly punctate but with minute punctulae and distinct strigulae. *Pronotum* not distinctly punctate but distinctly strigulose and with minute punctulae. *Elytra* vaguely flattened but not concave at sides, except for a narrow stria along the upturned margin; with fine and irregular but distinct punctures; transversely strigulose. *Abdomen* with coarse but rather indefinite punctures somewhat obscured by irregular strigulae. *Male*, eighth sternite with a very large triangular emargination nearly as deep as wide, the sides sinuate and the apical angle acuminate; eighth tergite quadridentate, the teeth longer than usual and more slender, the middle pair nearly twice as long as outer. *Female*, eighth tergite with four slender processes, the middle pair a little longer and deeply separated. Length, 2½ to 3½ mm.

Type locality.—Colombia. Of *ignavus*, Anana, Amazons, Brazil; of *convexus*, Brazil; of *inflatus*, Camp Grant, Ariz.

Types.—Either in the Hope Museum, Oxford, or the Zoologische Museum, Berlin. Of *convexus*, either in the Zoologische Museum, Berlin, or the Natural History Museum, Geneva; of *inflatus*, in the Academy of Sciences of Philadelphia; of *ignavus*, in the British Museum.

Records.—The following are the records known to me:

Cuba: (Fauvel, 1863, as *convexus*), Cayamas (Schwarz, in U.S.N.M.), San Antonio de los Banos (Pazos, in U.S.N.M.), Soledad (Darlington, in M.C.Z. and U.S.N.M.).

Puerto Rico: Cayey (Cotton, in U.S.N.M.), Bayamon (Lesesne, in U.S.N.M.), San Juan (Blackwelder station 44).

Trinidad: Manzanilla (Blackwelder station 104A).

South America: Colombia (Erichson, 1839b), Brazil (Sharp, 1883, as *ignavus*; Erichson, 1839b, as *convexus*; Fauvel, 1863, as *convexus*; British Museum), Argentina, Paraguay (Scheerpeltz, 1933), Argentina (British Museum).

Central America: Mexico, Guatemala, Panama (Sharp, 1883, as *ignavus*), Mexico (Fauvel, 1863, as *convexus*; U.S.N.M.), Mexico (Villada, 1901).

North America: ARIZONA (Horn, 1877, as *inflatus*), ARIZONA, TEXAS, CALIFORNIA (Blackwelder, 1938, as *inflatus;* U.S.N.M.), ARIZONA (Hubbard, 1899, as *convexus*).

Specimens examined.—From the West Indies I have seen 10 examples in the United States National Museum, 6 from the Museum of Comparative Zoology, and 3 collected by me in 1935–1937. In addition I have seen numerous examples from North, Central, and South America, including the types of *ignavus* and *inflatus.*

Remarks.—This species can be distinguished by its size and the unimpressed sides of the elytra. The northern specimens (Cuba, Puerto Rico, Mexico, North America) seem to be uniformly paler than the Trinidad or South American ones, though this may be due in part to the age of the specimens. I can find no other characters to separate them.

The Puerto Rican examples were collected "under bark of Bucare tree," the Cuban ones "on ceiba" (silk cotton tree), and the Trinidad ones in very old cocoa pods.

4. COPROPORUS TRINITATIS, new species

Description.—Rufous, sometimes very feebly piceseent in part. *Head* not distinctly punctate but with minute punctulae; without trace of ground sculpture. *Pronotum* not distinctly punctate but with very minute punctulae; without trace of strigulae. *Elytra* rather flattened at the sides but not concave, except for a narrow stria along the upturned margin; not distinctly punctate or strigulose but with minute punctulae. *Abdomen* distinctly but rather irregularly punctate, with traces of strigulae. *Male*, eighth sternite with a large somewhat rounded triangular emargination about one-third wider than deep; eighth tergite quadridentate, the middle pair separated only half way to base. *Female*, eighth tergite with six slender lobes, the middle four nearly equal in length but the two middle more triangular. Length, 1¾ to 3 mm.

Type locality.—Trinidad, the Tacarigua River, 2 miles north of Tacarigua or 4 miles northeast of St. Augustine.

Types.—Holotype, male, and four paratypes, U.S.N.M., No. 52454, collected by me on December 22, 1935.

Records.—The following is the only record known to me:

Trinidad: Tacarigua (Blackwelder station 107A).

Specimens examined.—I have seen only the five types.

Remarks.—This species can be distinguished by its entirely impunctate and smooth head, pronotum, and elytra. It resembles *rutilus* but differs in lacking the elytral concavity.

The types were found under stones at the river's edge.

5. COPROPORUS WEBERI, new species

Description.—Dark rufopiceous, head black, apex of abdomen rufous; sometimes rufous throughout. *Head* not punctate, but with a few minute punctulae obscured by the distinct transverse strigulae. *Pronotum* with punctulae and sculpture as on head, sometimes obsolescent. *Elytra* rather flattened at sides but not distinctly concave, except for a narrow stria along the margin; with very minute punctulae and irregular transverse strigulae. *Abdomen* with small punctures much obscured by irregular strigulose sculpture. *Male*, eighth sternite with an equilateral triangular emargination, the angles prolonged as parallel ridges, bearing coarse setae at the apices; eighth tergite quadridentate, the processes of same shape, size, and separation, the middle pair more posterior. *Female*, eighth tergite with four slender lobes, equally separated though middle pair not so deeply, middle pair a little more slender and longer. Length, 2½ mm.

Type locality.—Trinidad, St. Augustine.

Types.—Holotype, male, and seven paratypes, in the Museum of Comparative Zoology; six paratypes in the United States National Museum (No. 52542); collected in July 1935 by N. A. Weber.

Records.—The following are the records known to me:

Trinidad: Maracas Falls (Weber, in M.C.Z.), St. Augustine (Weber, in M.C.Z. and U.S.N.M.), foothills north of Tunapuna (Weber, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the 14 types.

Remarks.—This species is very distinct by the strong strigulae of all parts of the dorsal surface. All others of our species having these strigulae throughout have the elytra concave at the sides.

The strigulae are sometimes fainter on the pronotum but those on the elytra are enough to distinguish the species. The flattening at the sides of the elytra may at times seem to attain convexity. In these cases the specimens would key out to *flavicollis* and *cacao*. From the former it is distinguished by its dark pronotum; from the later by its size and the sparse strigulae of the pronotum.

I have received no record of the habits of this species.

6. COPROPORUS CACAO, new species

Description.—Piceous, sometimes slightly rufescent (or even testaceous). *Head* not punctate but exceedingly minutely punctulate and with scarcely a trace of strigulae. *Pronotum* not distinctly punctate but minutely punctulate, without strigulae (although iridescent). *Elytra* with a lateral concavity formed principally by the broadly upturned margin; not distinctly punctate but with punctulae distinct; sometimes at lateral third and along apical margin with fine short diagonal grooves; with rather feeble transverse strigulae. *Abdomen* with punctures rather obscured by irregular strigulae. *Male*, eighth sternite with a narrow triangular emargination scarcely as wide as deep; eighth tergite quadridentate, the middle pair much longer and not widely separated. *Female*, eighth tergite with four slender processes, the middle pair much longer. Length, 1 to 1½ mm.

Type locality.—St. Lucia, DuBoulay Estate, district of St. Remy, 3 miles southeast of Soufrière.

Types.—Holotype, female, U.S.N.M. No. 52453, collected by me on April 23, 1936.

Records.—The following are the records known to me:

St. Lucia: (Blackwelder stations 220B, 220G).
Trinidad: Montserrat (Busck, in U.S.N.M.).

Specimens examined.—Besides the type I have seen one specimen in the United States National Museum and one collected by me in May 1936.

Remarks.—This species can be distinguished by the combination of characters given in the key. My second example from St. Lucia is entirely testaceous but is otherwise similar to the type. The Trinidad example lacks the diagonal grooves of the elytra, but this does not appear to be of great importance.

My specimens were found in rotting grapefruit and among fermenting chips on a fresh stump.

7. COPROPORUS FLAVICOLLIS Scriba

Tachinus nitidulus Erichson, 1839b, p. 247.—Lacordaire, 1854, p. 55. (Not Fabricius, 1781.)
Coproporus flavicollis Scriba, 1855, p. 297.—Bernhauer and Schubert, 1916, p. 491.
Erchomus strigosus Sharp, 1883, p. 299.
Erchomus nitidulus (Erichson) Leng and Mutchler, 1914, p. 407.—Wolcott, 1924, p. 79; 1936, p. 198.
Coproporus nitidulus (Erichson) Bernhauer and Schubert, 1916, p. 491.
Coproporus strigosus (Sharp) Bernhauer and Schubert, 1916, p. 492.

Description.—Head and pronotum testaceous, elytra piceous to piceocastaneous with apex paler, abdomen piceous with apex piceotestaceous. *Head* without punctures or distinct punctulae; with distinct but irregular strigulae. *Pronotum* not distinctly punctate but with minute punctulae and distinct transverse strigulae. *Elytra* with a distinct lateral concavity formed principally by the broadly upturned margin; not distinctly punctate but with rather indistinct punctulae; with distinct transverse strigulae. *Abdomen* not clearly punctate but with very irregular strigulae. *Male*, eighth sternite with a narrow triangular emargination scarcely as wide as deep.

Female, eighth tergite with four processes, the middle pair longer and more slender. Length, 1 to 1½ mm.

Type locality.—Venezuela. Of *nitidulus*, Puerto Rico; of *strigosus*, Guatemala.

Types.—Presumably in the Senckenburg Museum, Frankfurt-am-Main. Of *nitidulus*, either in the Hope Museum, Oxford, or the Zoologische Museum, Berlin; of *strigosus*, in the British Museum.

Records.—The following are the records known to me:

Cuba: Cayamas (Schwarz, in U.S.N.M.), Soledad (Darlington, in M.C.Z. and U.S.N.M.).

Jamaica: Spanish Town (Blackwelder station 377).

Puerto Rico: (Erichson, 1839b, as *nitidulus*).

South America: VENEZUELA (Scriba, 1855).

Central America: MEXICO, GUATEMALA (Sharp, 1883, as *strigosus*), MEXICO (Fenyes, in U.S.N.M.), PANAMA (Schwarz, in U.S.N.M.).

Specimens examined.—I have seen one specimen from the West Indies in the British Museum, four from the Museum of Comparative Zoology, one in the United States National Museum, and two collected by me during 1935–37. Four examples from Central America were found in the United States National Museum, and the type of *strigosus* was examined in the British Museum.

Remarks.—This species may be distinguished by its testaceous head and pronotum. Central American examples which I compared with the type of *strigosus* are indistinguishable from my West Indian specimens. The above description was drawn from my Jamaican examples.

My specimens were caught flying at dusk.

8. COPROPORUS EBONUS, new name

Tachinus piceus ERICHSON, 1839b, pp. 246, 250.—LACORDAIRE, 1854, p. 55. (Not Stephens, 1829.)

Coproporus piceus (Erichson) BERNHAUER and SCHUBERT, 1916, p. 491.—SALT, 1929, pp. 435, 450, 464.—BERNHAUER, 1934, p. 217.

Erchomus piceus (Erichson) LENG and MUTCHLER, 1914, p. 407.—WOLCOTT, 1924, p. 79; 1936, p. 198.

Description.—Piceous, pronotum and abdomen more or less rufescent, sides of pronotum and apex of elytra narrowly and indefinitely paler. *Head* very minutely punctulate and with traces of strigulae, but shining. *Pronotum* not distinctly punctate but with minute punctulae; with traces of strigulae as on head. *Elytra* with a distinct lateral concavity formed principally by the broadly upturned margin; punctulae a little more distinct than on the head; strigulae more distinct than on the pronotum. *Abdomen* with distinct but very irregular strigulae obscuring any punctures. *Male*, eighth sternite with an abrupt triangular emargination as deep as wide; eighth tergite quadridentate, the middle teeth longer and narrower. *Female*, eighth tergite with four slender processes, the middle pair longer. Length, 1½ to 2 mm.

Type locality.—Puerto Rico.

Types.—Either in the Hope Museum, Oxford, or the Zoologische Museum, Berlin.

Records.—The following are the records known to me:

Jamaica: Moneague (Blackwelder station 370), Porus (Blackwelder station 423).
Puerto Rico: (Erichson, 1839b; Wolcott, 1924, 1936), Adjuntas (Blackwelder station 48C).
St. Lucia: (Blackwelder stations 220E, 224, 226, 227).
Grenada: (Blackwelder station 153A).

Specimens examined.—I have seen 5 examples in the British Museum and 18 collected by me during 1935–37.

Remarks.—This species is very similar to *pulchellus* but apparently can be distinguished by the smaller size of the pale areas as well as by the male characters. Both these species vary somewhat in the former character and might be considered to be a single species except for the distinct difference in shape of the emargination of the eighth sternite. This description was drawn from an example from St. Lucia.

My specimens were found in rotting cocoa pods, under-chips on fresh stumps, in dung, and under bark.

9. COPROPORUS PULCHELLUS (Erichson)

Tachinus pulchellus Erichson, 1839b, p. 247.—Lacordaire, 1854, p. 55.
Coproporus cumanensis Scriba, 1855, p. 297.—Bernhauer and Schubert, 1916, p. 492.
Tachinus infimus DuVal, 1857, p. 33.—Chevrolat and Fauvel, 1863, p. 430.—Blackwelder, 1938, p. 9.
Coproporus infimus (DuVal) Chevrolat and Fauvel, 1863, p. 430.—Bernhauer and Schubert, 1916, p. 490.—Blackwelder, 1938, pp. 2, 9.
Coproporus distans Sharp, 1876, p. 92; 1883, p. 299.—Bernhauer and Schubert, 1916, p. 492.
Erchomus distans (Sharp) Sharp, 1883, p. 299, 300.
Erchomus infimus (DuVal) Leng and Mutchler, 1914, p. 407.—Leng, 1920, p. 111.—Blackwelder, 1938, p. 9.
Coproporus pulchellus (Erichson) Bernhauer and Schubert, 1916, p. 492.—Cameron, 1922, p. 123.

Description.—Piceous, pronotum generally somewhat rufescent with margins testaceous, elytra rufocastaneous with apical third testaceous. *Head* not distinctly punctate but with irregular and indistinct strigulae and minute punctulae. *Pronotum* not distinctly punctate but with minute punctulae and traces of strigulae. *Elytra* with a distinct lateral concavity formed in part by the upturned margin; not very distinctly punctate but with minute punctulae and traces of transverse strigulae. *Abdomen* with distinct but very irregular strigulae obscuring any punctures. *Male*, eighth sternite with an abrupt triangular emargination over twice as wide as deep; eighth tergite bluntly quadridentate, the middle teeth rather widely separated. *Female*, eighth tergite with four slender processes, the inner pair longer and more slender than the outer. Length 1¾ to 2 mm.

Type locality.—"In Puerto Rico et in Colombia." Of *infimus*, Cuba; of *distans*, Rio Purus, Amazons, Brazil; of *cumanensis*, Venezuela.

Types.—Either in the Hope Museum, Oxford, or the Zoologische Museum, Berlin. Of *cumanensis*, probably in the Senckenburg Museum, Frankfort am Main; of *distans*, in the British Museum; of *infimus*, either in the Muséum National d'Histoire Naturelle, Paris, or the British Museum, London.

Records.—The following are the records known to me:

Cuba: (Fauvel, 1863), Cayamas (Schwarz, in U.S.N.M.), Soledad (Darlington, in M.C.Z. and U.S.N.M.), mountains north of Imias, Oriente (Darlington, in M.C.Z.).

Jamaica: (Hubbard, in U.S.N.M.), Troy (Blackwelder station 409), Manchioneal (Blackwelder station 9B), Spanish Town (Blackwelder station 377), Trinityville (Blackwelder station 428), May Pen (Blackwelder station 425C), Milk River (Blackwelder station 415), Santa Cruz (Blackwelder station 421), Whitfield Hall (Darlington, in M.C.Z. and U.S.N.M.).

Hispaniola: HAITI, Port-au-Prince (Audant, in U.S.N.M.) ; DOMINICAN REPUBLIC, Puerto Plata, (Darlington, in M.C.Z.), Mount Quita-Espuela (Darlington, in U.S.N.M.).

Puerto Rico: (Erichson, 1839b; U.S.N.M.).

Antigua: (Blackwelder station 277A; H. E. Box, as Blackwelder station 444O).

Dominica: (Blackwelder stations 235B, 237, 248A, 251, 252, 257C).

St. Lucia: (Blackwelder stations 220B, 220C, 221, 224, 226, 227, 230, 231; H. E. Box, as Blackwelder station 444B).

St. Vincent: (U.S.N.M.; British Museum).

Grenada: (U.S.N.M.; British Museum), Blackwelder stations 132, 137, 153A).

Trinidad: Sangre Grande (Blackwelder station 100A).

South America: COLOMBIA (Erichson, 1839b), BRAZIL (Sharp, 1883), VENEZUELA (Scriba, 1855, as *cumanensis*).

Central America: NICARAGUA, GUATEMALA (Sharp, 1883), MEXICO (British Museum).

North America: FLORIDA (Leng, 1920; Blackwelder, 1938).

Specimens examined.—From the West Indies I have seen 295 examples in the British Museum, 8 from the Museum of Comparative Zoology, 22 in the United States National Museum, and 1907 collected by me during 1935–37.

Remarks.—This is the commonest West Indian *Coproporus* and is equally abundant in Central America. It can generally be distinguished by its small size and its coloring, but from *ebonus* it is separated by rather unsatisfactory characters as mentioned under that species.

My specimens were taken from rotting citrus fruit, from decaying cocoa pods, in freshly cut chips of coconut husks, under chips on fresh stumps, from fungus, from manure, in decomposing trash in sugarcane fields, among decomposing forest debris, and flying at dusk.

10. COPROPORUS RUTILUS (Erichson)

Tachinus rutilus ERICHSON, 1839b, p. 253.—SHARP, 1883, p. 304.—BLACKWELDER, 1938, pp. 2, 4.

Tachinus terminalis ERICHSON, 1839b, p. 250.—LACORDAIRE, 1854, p. 55.—CHEVROLAT and FAUVEL, 1863, p. 430.—DUVAL, 1857, p. 32.

Tachyporus brevis SCRIBA, 1855, p. 296.—BLACKWELDER, 1938, pp. 4, 5.

Coproporus brevis (Scriba) BERNHAUER and SCHUBERT, 1916, p. 492. (Not Sharp, 1876.)

Coproporus terminalis (Erichson) CHEVROLAT and FAUVAL, 1863, p. 429.—LENG and MUTCHLER, 1914, p. 407.—BERNHAUER and SCHUBERT, 1916, p. 493.—WOLCOTT, 1924, p. 79; 1936, p. 198.

Erchomus rutilus (Erichson) SHARP, 1883, p. 304.—WOLCOTT, 1936, p. 198.—BLACKWELDER, 1938, p. 4.

Cilea rutilus (Erichson) LENG and MUTCHLER, 1914, p. 406.—WOLCOTT, 1924, p. 79; 1936, p. 198.—BLACKWELDER, 1938, p. 4.

Coproporus rutilus (Erichson) BERNHAUER and SCHUBERT, 1916, p. 492.—BERNHAUER, 1918, p. 91.—SCHEERPELTZ, 1933, p. 1518.—BERNHAUER, 1934, p. 218.—WOLCOTT, 1936, p. 198.—BLACKWELDER, 1938, pp. 2, 3, 4.

Coproporus obscurior BERNHAUER, 1918, p. 92 (as aberration).—SCHEERPELTZ, 1934, p. 1518.

Coproporus piceorufus BERNHAUER, 1918, p. 92 (as aberration).—SCHEERPELTZ, 1934, p. 1518.

Description.—Clear rufous to rufopiceous. *Head* minutely punctulate but not otherwise punctate or sculptured. *Pronotum* not distinctly punctured or sculptured, but sometimes with one or two rather large punctiform depressions at the sides of the disk. *Elytra* with a large and distinct depression at the sides but slightly separated from the margin; rather finely but very distinctly punctured, the intervals smooth and shining. *Abdomen* punctured similarly to the elytra but a little more finely and with irregular strigulae among the punctures. *Male*, eighth sternite with a large abrupt triangular emargination about one-third wider than deep; eighth tergite quadridentate, the median teeth longer and more acute, the median notch rather broad. *Female*, eighth tergite divided into four processes, the two middle more slender and a little longer than the outer. Length, 1½ to 2 mm.

Type locality.—"Americae ins. Puerto Rico et St. Thomae, in Columbia." of *brevis*, Venezuela; of *obscurior*, Panama; of *piceorufus*, Argentina and Brazil; of *terminalis*, Puerto Rico.

Types.—Either in the Hope Museum, Oxford, or the Zoologische Museum, Berlin. Of *brevis*, probably in the Senckenburg Museum, Frankfurt-am-Main; of *obscurior* and *piceorufus*, presumably in the collection of Dr. Max Bernhauer; of *terminalis*, with *rutilus*.

Records.—The following are the records known to me:

Cuba: (Fauvel, 1863; DuVal, 1857; as *terminalis;* Wright, in M.C.Z.), Cayamas (Schwarz, in U.S.N.M.), Soledad (Darlington, in M.C.Z. and U.S.N.M.).

Jamaica: Trinityville (Blackwelder station 428).

Hispaniola: HAITI, Sources Puantes (Darlington, in M.C.Z.), Port-au-Prince (Darlington, in U.S.N.M.); DOMINICAN REPUBLIC, Sánchez (Darlington, in M.C.Z.).

Puerto Rico: (Erichson, 1839b, as both; DuVal, 1857, as *terminalis;* Fauvel, 1863, as *terminalis;* Sharp, 1883), Ponce (R. G. Oakley, in U.S.N.M.).

St. Thomas: (Erichson, 1839b; Sharp, 1883).

St. Croix: (Blackwelder stations 341, 344).

Montserrat: (Hubbard, in U.S.N.M.; Blackwelder station 269).

Dominica: (Blackwelder stations 251, 252).

St. Vincent: (British Museum).

Grenadines: Mustique (U.S.N.M.; British Museum).

Grenada: (U.S.N.M.; British Museum).

Trinidad: Port of Spain (Blackwelder station 115), St. Augustine (Weber, in M.C.Z. and U.S.N.M.), foothills north of Tunapuna (Weber, in M.C.Z. and U.S.N.M.).

South America: COLOMBIA (Erichson, 1839b; Sharp, 1883), BRAZIL (Sharp, 1883), ARGENTINA, BRAZIL (Bernhauer, 1918, as *piceorufus*), VENEZUELA (Scriba, 1855, as *brevis*).

Central America: MEXICO, BRITISH HONDURAS, GUATEMALA, NICARAGUA (Sharp, 1883), PANAMA (Bernhauer, 1917, as *obscurior*).

North America: TEXAS (Blackwelder, 1938).

Specimens examined.—From the West Indies I have seen 124 examples in the British Museum, 24 from the Museum of Comparative Zoology, 13 in the United States National Museum, and 11 collected by me during 1935–37.

Remarks.—In general this species is very distinct by its bright red color from all except *trinitatis*. From this it differs in having the definite lateral impression of the elytra. However, the specimens I have identified as *terminalis* are darker, although the pronotum is still lighter than the rest of the body. I can find no way to separate these specimens or the original descriptions. The above description was taken from specimens from Dominica.

My specimens were found under seaweed on the beach and, more commonly, flying at dusk.

11. COPROPORUS BUSCKI, new species

Description.—Piceous, elytra somewhat rufescent at base. *Head* rather irregularly but distinctly punctate; surface minutely uneven but not distinctly strigulose. *Pronotum* distinctly but somewhat irregularly punctate; surface irregularly and indistinctly strigulose.

Elytra with a large and deep depression along the lateral margin; a little more coarsely punctate than pronotum; surface uneven but not strigulose. *Abdomen* not very distinctly punctate but with irregular strigulae. *Male*, eighth sternite with a large triangular emargination about one-half wider than deep, the angles narrowly rounded; eighth tergite quadridentate, the median pair of teeth longer and separated by a notch of same size and shape as the teeth. *Female*, eighth tergite with four slender processes, the inner pair a little longer than the outer. Length, 2⅔ mm.

Type locality.—Trinidad, ward of Montserrat.

Types.—Holotype, male, and two paratypes, female, U.S.N.M. No. 52452, collected on July 4, 1905, by August Busck.

Records.—The following is the only record known to me:

Trinidad: Montserrat (Busck, in U.S.N.M.).

Specimens examined.—I have seen only the three types.

Remarks.—This species is distinguished by the relatively coarse punctures of the pronotum. Its robust size will also serve to separate it from the species with impressed elytra.

I have no record of its habits.

LXXXVII. Genus CONOSOMUS Motschulsky

Conurus Stephens, 1829, p. 272. (Not Kuhl, 1820.)
Conosomus Motschulsky, 1857b, p. 54.
Conosoma Kraatz, 1857a, p. 431.
Canurus Kraatz, 1874, p. 292 (misspelling).

Genotypes.—*Staphylinus littoreus* Linnaeus=*Conosomus littoreus* (Linnaeus) (designated here). Of *Conurus*, *Tachyporus pubescens* Gravenhorst=*Conurus pubescens* (Gravenhorst) (designated here); of *Conosoma*, *Staphylinus littoreus* Linnaeus=*Conosoma littorea* (Linnaeus) (designated here).

Diagnosis.—Head inclined, not margined at the sides beneath; hypostomal suture and anterior part of coronal suture distinct; antennae 11-segmented, inserted at sides of head; labrum transverse; maxillary palpus subulate; gular sutures separate; anterior coxal cavities closed behind by the union of the prosternum and hypomera beneath the coxae; front coxae large, exserted; posterior coxae contiguous, "transverse"; abdomen not margined, first and second sternite absent; tibiae fimbriate at tip with equal spinules; tarsi 5-segmented, first segment of posterior tarsus short.

Remarks.—The two names *Conosomus* and *Conosoma* were published in the same year (1857) apparently entirely independently as new names for the preoccupied *Conurus* Stephens. *Conosoma* has subsequently been used almost exclusively, with *Conosomus* only rarely cited even as a synonym. However, in 1860 (1860a, p. 575) Motschulsky wrote that his name was older than that of Kraatz and that Kraatz had improperly credited the name to himself. In view of this it appears that Motschulsky's name is the older and is to be used for the genus, and the Kraatz name may reasonably be considered an emendation or misspelling.

This genus is world-wide in distribution and is well represented in North and South America. It is readily recognized by its convex tapering form and dense vestiture.

Five species have been described from the West Indies but I am unable to distinguish them. I have therefore considered them to be only one species.

1. CONOSOMUS INTERRUPTUS (Erichson)

Conurus interruptus Erichson, 1839b, p. 225.
Conosoma interruptum (Erichson), Bernhauer and Schubert, 1916, p. 468.
Conosoma vitraci Bernhauer, 1918, p. 50.—Scheerpeltz, 1933, p. 1500.
Conosoma caribeanum Bierig, 1937, p. 276, figs. 4, 5.
Conosoma cubanum Bierig, 1937, p. 277, fig. 6.
Conosoma conforme Bierig, 1937, p. 278, fig. 7.

Description.—Piceocastaneous, basal spot on elytra and apex of abdomen more or less rufescent. *Head* transverse, inserted into prothorax almost to the eyes; frontal area testaceous; antennae slender at base, apical segment variable in shape; with rather fine and irregular punctures between the eyes. *Pronotum* strongly convex, nearly one-third wider than long, sides evenly rounded; with very fine and vaguely submuricate punctures throughout; surface shining. *Elytra* with punctures similar to those of pronotum but somewhat obscured by irregular ground sculpture. *Abdomen* with very fine punctures rather obscured by fine and irregular ground sculpture, the punctures more distinctly submuricate posteriorly. *Vestiture* very conspicuous throughout. Length, 1½ to 3 mm.

Type locality.—"Valle Araguensi Columbiae." Of *vitraci*, Guadeloupe; of *caribeanum*, *cubanum*, and *conforme*, Cuba.

Types.—Either in the Hope Museum, Oxford, or the Zoologische Museum, Berlin. Of *vitraci*, in the Bernhauer collection; of *caribeanum*, *cubanum*, and *conforme*, in the Bierig collection. One "cotype" of *conforme* is in the United States National Museum.

Records.—The following are the records known to me:

Cuba: Sierra del Rosario, El Rangel (Bierig, 1937), Sierra de Bonilla, Cueva del Indio (Bierig, 1937), Pico Somorrostro (Bierig, 1937), Aspiro (Bierig, 1937), Cayamas (Schwarz, in U.S.N.M.), Soledad (Darlington, in M.C.Z. and U.S. N. M.), Pico Turquino (Darlington, in M.C.Z. and U. S. N. M).

Jamaica: Bath in St. Thomas (Blackwelder station 387A).

Hispaniola: HAITI, Roche Croix (Darlington, in M.C.Z.) ; DOMINICAN REPUBLIC, Valle Nuevo (Darlington, in M.C.Z and U.S.N.M.), Constanza (Darlington, in M.C.Z. and U.S.N.M.).
Puerto Rico: El Yunque (Darlington, in M.C.Z. and U.S.N.M.).
Montserrat: (Hubbard, in U.S.N.M.).
Guadeloupe: (Bernhauer, 1918, as *vitraci;* Busck, in U.S.N.M.).
St. Vincent: (British Museum).
Trinidad: Tacarigua (Blackwelder station 107C), Guepo Bay (Darlington, in M.C.Z.).
South America: COLOMBIA (Erichson, 1839b).

Specimens examined.—I have seen 2 examples in the British Museum, 18 from the Museum of Comparative Zoology, 15 in the United States National Museum, and 5 collected by me during 1935–37.

Remarks.—I am unable to distinguish the species recently named by Bierig from Cuba or that of Bernhauer from Guadeloupe. The characters used seem to me to be variable and all extremes are to be found in the series before me. I have hesitated to reduce to synonymy the two species I have not seen (*cubanus* and *caribeanus*) but find no other procedure tenable on the information at hand.

My examples were taken from under moss and dirt on a rock beside a stream and from fungus (*Hydnum* sp.).

LXXXVIII. Genus BRYOPORUS Kraatz

Bryoporus KRAATZ, 1857a, p. 452.
Subgenus *Bryophacis* REITTER, 1909, p. 102.

Genotypes.—*Tachinus cernuus* Gravenhorst = *Bryoporus cernuus* (Gravenhorst) (designated here). Of *Bryophacis*, *Bolitobius rufus* Erichson = *Bryoporus* (*Bryophacis*) *rufus* (Erichson) (designated by Tottenham, 1939.)

Diagnosis.—Head inclined, strongly margined beneath the eyes; antennae inserted at sides in front of eyes, 11-segmented, outer segments pubescent from the fourth joint; hypostomal suture present, coronal suture absent; labrum rather large, subquadrate; palpi stout, fourth segment of maxillary about as long as third, conical; gular sutures widely separated; anterior coxal cavities entirely open behind; front coxae very large, exserted; posterior coxae contiguous, "transverse," expanded laterally and caudally under the femora; first and second abdominal sternites absent; tarsi 5-segmented, first segment of posterior moderate or short.

Remarks.—This small genus is structurally very close to *Bolitobius* but can be distinguished by its equal spinules at the apex of the tibiae and by the conical fourth segment of the maxillary palpus.

I have seen 21 examples from the West Indies representing 7 species, of which 6 appear to be new.

KEY TO WEST INDIAN SPECIES OF BRYOPORUS

1. Elytral punctures very sparse, not forming distinct series 2
   Elytral punctures in numerous series 3
2. Elytra broader than pronotum, punctures very irregular in size .... 6. cubanus
   Elytra not broader than pronotum, punctures sparse but of same size. 7. subterraneus
3. Pronotum with sparse transverse scratches .... 5. aciculatus
   Pronotum with punctures and punctulae only 4
4. Black or piceous throughout, except for edges 5
   Head and pronotum bright rufous .... 3. bicolor
5. Head, pronotum, and elytra with at least traces of ground sculpture. 4. obscurus
   Without trace of ground sculpture 6
6. Elytral series regular and distinct .... 1. regulus
   Elytral series in part irregular and confused .... 2. similis

1. BRYOPORUS REGULUS, new species

Description.—Black or piceous, edges sometimes rufescent. *Head* suborbicular, deflected; without distinct punctures on the disk but with irregular minute punctulae sometimes in clusters; without ground sculpture. *Pronotum* two-sevenths wider than long, widest at basal fourth; basal angles obtuse but distinct; strongly convex; with a single pair of large discal punctures at apical third and scattered rather coarse punctulae; without ground sculpture. *Elytra* with very large but very shallow punctures, excavated behind, in eight longitudinal series, the fifth, sixth, and seventh not perfectly regular but readily traceable; without ground sculpture. *Abdomen* with punctures finer than on elytra and often submuricate; without ground sculpture. Length, 3½ to 6 mm.

Type locality.—Dominican Republic, cloudforest in the vicinity of Valle Nuevo; elevation about 6,000 feet.

Types.—Holotype and three paratypes in the Museum of Comparative Zoology; four paratypes in the United States National Museum (No. 52543); collected in August 1938 by Dr. P. J. Darlington. (Paratypes partly from localities listed below.)

Records.—The following are the records known to me:

Hispaniola: HAITI, La Visité (Darlington, in M.C.Z.); DOMINICAN REPUBLIC, Valle Nuevo (Darlington, in M.C.Z. and U.S.N.M.), foothills south of Santiago (Darlington, in M.C.Z. and U.S.N.M.); Sánchez (Darlington, in M.C.Z. and U.S.N.M.), San José de las Matas (Darlington, in M.C.Z.), Constanza (Darlington, in M.C.Z.).

Specimens examined.—I have seen the eight types and two other specimens from the Museum of Comparative Zoology.

Remarks.—This species is distinguished as outlined in the key. It attains the largest size of any so far taken in the West Indies.

The type was taken in cloudforest, but I have received no other record of the habits of this species.

2. BRYOPORUS SIMILIS, new species

Description.—Piceous, abdominal segments rufescent behind. *Head* suborbicular, deflected; without distinct punctures on the disk but with irregular scattered punctulae; without ground sculpture. *Pronotum* about one-fifth wider than long, widest at basal third; basal angles obtuse but distinct; strongly convex; with a pair of moderate discal punctures at apical fourth (and possibly another behind middle); with strong but irregular punctulae but no ground sculpture. *Elytra* with moderately large but very shallow punctures excavated behind and in eight longitudinal series; the sixth and seventh and apex of fifth confused; without ground sculpture. *Abdomen* with rather fine and not dense submuricate punctures; without trace of ground sculpture. Length, 4½ mm.

Type locality.—Trinidad, base of Galeota Point.

Types.—Holotype in the Museum of Comparative Zoology, collected on September 20, 1935, by N. A. Weber.

Records.—The following is the only record known to me:

Trinidad: Galeota Point (Weber, in M.C.Z.).

Specimens examined.—I have seen only the holotype.

Remarks.—This species is very similar to *regulus* but has the elytral series more confused, the discal pronotal pair more anterior, and the pronotum proportionately less wide.

I have received no record of its habits.

3. BRYOPORUS BICOLOR, new species

Description.—Head and pronotum rufous, elytra rufopiceous, abdomen rufocastaneous. *Head* oval, the eyes much shorter than their distance from base; without discal punctures but with irregular punctulae; without ground sculpture. *Pronotum* one-seventh broader than long, widest at basal third; basal angles narrowly rounded; with a pair of discal punctures near apical third and another pair near basal fourth; with punctulae more distinct and regular than on head; without distinct ground sculpture. *Elytra* with large but shallow and posteriorly excavated punctures, the longitudinal series scarcely traceable except at suture and sides, the punctures usually separated by their diameter or less; without ground sculpture. *Abdomen* with punctures similar to those of elytra but much finer, submuricate; without distinct ground sculpture. Length, 4½ to 5 mm.

Type locality.—Dominican Republic: cloudforest in the vicinity of Valle Nuevo; elevation about 6,000 feet.

Types.—Holotype and two paratypes in the Museum of Comparative Zoology; two paratypes in the United States National Museum (No. 52544); collected in August 1938 by Dr. P. J. Darlington.

Records.—The following are the records known to me:

Hispaniola: DOMINICAN REPUBLIC, Valle Nuevo (Darlington, in M.C.Z. and U.S.N.M.), Loma Rucilla (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the five types.

Remarks.—This species is distinct by the bright rufous color of the head and pronotum, as well as by the shape of the head and the size of the eyes, and the basal pair of pronotal punctures.

The types were taken in cloudforest, but I have received no other record of the habits of this species.

4. BRYOPORUS OBSCURUS (Erichson)

Bolitobius obscurus ERICHSON, 1839b, p. 272.—LENG and MUTCHLER, 1914, p. 407.—BERNHAUER and SCHUBERT, 1916, p. 460.—WOLCOTT, 1924, p. 79; 1936, p. 198.

Description.—Piceous, edges of pronotum, elytra, and abdominal segments more or less rufescent. *Head* suborbicular, deflected; eyes at more than their length from base; without punctures on the disk; with indistinct ground sculpture. *Pronotum* about one-fourth wider than long, widest at basal third; basal angles obtuse but distinct; rather strongly convex; with a single pair of discal punctures at anterior fourth and another pair near base; surface indistinctly pitted and with traces of ground sculpture. *Elytra* with moderately large but shallow and irregular punctures in longitudinal series, the sutural impressed, the rest not very distinct; with traces of ground sculpture between. *Abdomen* with punctures a little finer and less distinct than on elytra; without distinct ground sculpture. Length, 3½ to 4 mm.

Type locality.—Puerto Rico.

Types.—Either in the Hope Museum, Oxford, or the Zoologische Museum, Berlin.

Records.—The following are the records known to me:

Puerto Rico: (Erichson, 1839b).
Grenada: (British Museum).

Specimens examined.—I have seen only one example in the British Museum. It was borrowed for further study.

Remarks.—The specimen on which the above description was based was placed in the British Museum under the name *Bryoporus seriatus* Erichson from Brazil. My examination showed that the two were not the same, and I cannot now find any character to distinguish it from *obscurus*, which was described from the West Indies and apparently has not been reported since.

I find no record of its habits.

5. BRYOPORUS ACICULATUS, new species

Description.—Dark rufous, feebly picescent in part. *Head* suborbicular, eyes occupying less than half the length; without discal punctures but with distinct minute punctulae; without ground sculpture. *Pronotum* about one-fourth wider than long, widest near basal third, basal angles obtuse but distinct; with a pair of discal punctures at apical third and another pair at basal fifth; with fairly coarse punctulae and irregular transverse aciculations or scratches; without ground sculpture. *Elytra* with fairly coarse shallow punctures, excavated behind, in eight longitudinal series, somewhat impressed and not clearly defined at sides of disk; without ground sculpture. *Abdomen* with fine submuricate punctures rather dense; without distinct ground sculpture except on apical segments. Length, 4 mm.

Type locality.—Cuba, mountains north of Imias, eastern Oriente province; elevation 3,000 to 4,000 feet.

Types.—Holotype in the Museum of Comparative Zoology, collected on July 25–28, 1936, by Dr. P. J. Darlington.

Records.—The following is the only record known to me:

Cuba: Imias in Oriente (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the holotype.

Remarks.—This species is very distinct because of the scratches on the pronotum. It also is unusual in having the rows of elytral punctures somewhat impressed.

I have received no record of its habits.

6. BRYOPORUS CUBANUS, new species

Description.—Piceorufous, the elytra rufotestaceous. *Head* suborbicular, a little broader than long, eyes nearly half as long as head; without discal punctures, but with scattered minute punctulae; without ground sculpture. *Pronotum* about one-eighth broader than long, widest at basal third, basal angles somewhat rounded; with a pair of discal punctures at apical fourth and another pair at base; with minute punctulae but no ground sculpture. *Elytra* with punctures indistinct except in sutural series and in an area at outer apical third and toward humerus, where they are coarse but sparse; without ground sculpture. *Abdomen* with moderate punctures broadly excavated behind and somewhat obscuring each other; without ground sculpture. Length, 2½ to 3 mm.

Type locality.—Cuba, Soledad, near Ciefuegos.

Types.—Holotype in the Museum of Comparative Zoology; paratype in the United States National Museum (No. 52545); collected on January 15 and October 15, 1926, respectively.

Records.—The following is the only record known to me:

Cuba: Soledad (Darlington, in M.C.Z. and U.S.N.M.).

Specimens examined.—I have seen only the two types.

Remarks.—This species is readily distinguished by the testaceous elytra as well as by the feeble elytral punctation. The latter appears to be variable, but the large punctures are never regularly serial.

I have received no record of its habits.

7. BRYOPORUS SUBTERRANEUS, new species

Description.—Testaceous, the elytra and abdomen somewhat rufescent. *Head* almost as broad as long but somewhat narrowed in front, eyes at at least three times their length from base; with scattered irregular small punctures, but without ground sculpture. *Pronotum* scarcely wider than long, widest just behind middle, only slightly narrower in front than at hind angles; with a pair of large discal punctures at apical fifth and another pair at basal fourth, and with large punctulae throughout; without ground sculpture. *Elytra* shorter and narrower than pronotum; with coarse but irregular punctures throughout, serial only along suture; without distinct ground sculpture. *Abdomen* with coarse but very shallow punctures, feebly submuricate; with traces of strigulose ground sculpture, especially apically. Length, 3 mm.

Type locality.—Jamaica, main range of the Blue Mountains; elevation 5,000 to 7,388 feet.

Types.—Holotype in the Museum of Comparative Zoology, collected on August 17–19, 1934, by Dr. P. J. Darlington.

Records.—The following is the only record known to me:

Jamaica: Blue Mountains (Darlington, in M.C.Z.).

Specimens examined.—I have seen only the holotype.

Remarks.—This species is very distinct because of its subterranean facies. The reduced elytra, the punctation of the head and elytra, and the shape of the pronotum will also serve to distinguish it.

I have received no record of its habits.

Subfamily HYPOCYPHTINAE

This group has generally been classified as a tribe in the subfamily Tachyporinae, but it differs from the other members of that subfamily in so many points that I see no other course at present than to raise the tribe to a subfamily. These characters include the absence of the frontal sutures, the elongate lacinia of the maxilla, the complete submental sutures, the large mesosternal intercoxal process, the 4-segmented tarsi, the absence of paratergites on the second abdominal segment, and the extreme development of the male genitalia.

Only one genus has been found in the West Indies.

LXXXIX. Genus ANACYPTUS Horn

Anacyptus Horn, 1877, p. 87.
Microcyptus Horn, 1882, p. i.
Micrccyptus Eichelbaum, 1909, p. 196 (misspelling).

Genotype.—*Hypocyphtus testaceus* LeConte=*Anacyptus testaceus* (LeConte) (monobasic). Of *Microcyptus*, *Hypocyphtus testaceus* LeConte=*Microcyptus testaceus* (LeConte) (Rules, Article 30, II, f).

Diagnosis.—Head short and strongly deflected, not distinctly margined beneath the eyes; hypostomal and coronal sutures not visible; antennae 10-segmented with the two basal and three apical segments enlarged, inserted at sides of head close to eyes; labrum semicircular; maxillary palpus subulate, third segment large; gular sutures widely separated; pronotum and elytra extended beneath the body; anterior coxal cavities not at all concave but open behind; front coxae very large, exserted; middle coxae narrowly separated; posterior coxae very large, contiguous, broadly expanded laterally and caudally beneath the femur and with an expansion over the base of the femur; abdomen narrowly margined basally, first and second sternites absent; tarsi 4-segmented.

Remarks.—This genus contains the smallest species of Staphylinidae known. It is distinguishable by its size, by the shape of the antennae, and by the structure of the posterior coxae.

The name *Microcyptus* was proposed by Horn to replace *Anacyptus*, which he believed to be preoccupied. However, under our present code of nomenclature, *Anacypta* Illiger does not preoccupy *Anacyptus*, and the latter must be accepted.

Only one species is known from the West Indies.

1. ANACYPTUS TESTACEUS (LeConte)

Hypocyphtus testaceus LeConte, 1863, p. 30.—Horn, 1877, p. 125.—Henshaw, 1881, p. 219.—Eichelbaum, 1909, p. 196.

Anacyptus testaceus (LeConte) Horn, 1877, p. 87, 125.—Schwarz, 1878, p. 440.—Henshaw, 1881, p. 219.

Microcyptus testaceus (LeConte), Schwarz, 1889, p. 160.—Dury, 1902, p. 124.—Wasmann, 1903, p. 98.—Eichelbaum, 1909, p. 196.—Blatchley, 1910, p. 442.—Bernhauer and Schubert, 1916, p. 495.

Description.—Rufotestaceous. *Head* sparsely minutely punctulate, without ground sculpture. *Pronotum* minutely punctulate and pubescent, the tiny setulae arranged to appear like striae; without ground sculpture. *Elytra* minutely punctulate and pubescent, the tiny setulae forming longitudinal and sometimes diagonal lines; without distinct ground sculpture. *Abdomen* generally very much retracted, with rather dense setae at the sides. Length, 2/5 mm.

Type locality.—Athens, Ga.

Types.—In the LeConte collection in the Museum of Comparative Zoology, Cambridge, Mass.

Records.—The following are the records known to me:

Cuba: Cayamas (Schwarz, in U.S.N.M.).
Montserrat: (Hubbard, in U.S.N.M.).
North America: ARIZONA, TEXAS, FLORIDA (U.S.N.M.), GEORGIA (LeConte, 1863), GEORGIA, ARIZONA (Horn, 1877), LAKE SUPERIOR (Casey collection).

Specimens examined.—I have seen five examples from the West Indies in the United States National Museum and numerous North American examples.

Remarks.—This minute species appears to have a wide range although it is seldom collected. *A. goeldii* Wasmann from Brazil is very similar, if one may judge from the description, and may possibly be the same. It was found in termite nests.

This species was originally reported from under pine bark, but I find no record concerning the West Indian examples.

Subfamily ALEOCHARINAE

Although this is by far the largest subfamily of staphylinids, it is a very heterogeneous one and one that is very poorly known from the standpoint of classification and morphology. Many thousands of species have been described, but comparatively few generic revisions have been published, and no adequate key to the genera has been proposed.

The principal classifications that have been proposed have been based on the segmentation of the tarsi and palpi. It is known that these characters are not stable in some groups, but no allowance has been made for this fact. In addition, the structure of the tarsus is such that very different counts can be arrived at with different magnifications. Under these conditions it is exceedingly difficult, as well as uncertain, to make generic identifications, although species can sometimes be readily determined by comparison.

Under these conditions it appears useless to add to the number of species requiring future reclassification, especially as no particular purpose is served by describing these obscure forms at this time. For this reason, I have compiled the records that have been published from the West Indies, but I have not described the new species that undoubtedly do exist in our collections, and I have not attempted to identify the known species in this group.

There have been recorded from the West Indies 156 species belonging to 41 genera.

Genus DEINOPSIS Matthews

Deinopsis Matthews, 1838, p. 193.
Dinopsis Kraatz, 1857b, p. 37.

1. DEINOPSIS GRACILIS Cameron

Deinopsis gracilis Cameron, 1922, p. 123.—Bernhauer and Scheerpeltz, 1926, p. 503.

Records.—The following are the records known to me:

St. Lucia: (Cameron, 1922; Cameron collection).

Genus MYLLAENA Erichson

Myllaena Erichson, 1837, p. 382.
Centroglossa Matthews, 1838, p. 194.
Myllana Duponchel, 1841, p. 57 (misspelling).
Millaena Fenyes, 1918, pp. 3, 10 (misspelling).
Myllanea Fenyes, 1918, p. 15 (misspelling).

1. MYLLAENA CELERRIMA Cameron

Myllaena celerrima Cameron, 1922b, p. 650.—Bernhauer and Scheerpeltz, 1926, p. 505.

Records.—The following are the records known to me:

St. Vincent: (Cameron, 1922b; British Museum).
Grenada: (Cameron, 1922b; British Museum).

2. MYLLAENA CURTICORNIS Cameron

Myllaena curticornis Cameron, 1922b, p. 651. — Bernhauer and Scheerpeltz, 1926, p. 505.

Records.—The following are the records known to me:

Grenada: (Cameron, 1922b; British Museum).

3. MYLLAENA DIFFICILIS Cameron

Myllaena difficilis Cameron, 1922b, p. 651.—Bernhauer and Scheerpeltz, 1926, p. 505.

Records.—The following are the records known to me:

Jamaica: (Cameron, 1922b; Cameron collection).

4. MYLLAENA DIVERSICORNIS Cameron

Myllaena diversicornis Cameron, 1922b, p. 650.—Bernhauer and Scheerpeltz, 1926, p. 505.

Records.—The following are the records known to me:

St. Vincent: (Cameron, 1922b; British Museum; Cameron collection).
Grenada: (Cameron, 1922b; British Museum.)

5. MYLLAENA FRAGILIS Sharp

Myllaena fragilis Sharp, 1883, p. 286.—Fenyes, 1920, p. 138.—Bernhauer and Scheerpeltz, 1926, p. 506.

Records.—The following are the records known to me:

St. Lucia: (Cameron collection).
Central America: GUATEMALA (Sharp, 1883).

6. MYLLAENA GRANULATA Cameron

Myllaena granulata CAMERON, 1922b, p. 652.—BERNHAUER and SCHEERPELTZ, 1926, p. 507.

Records.—The following are the records known to me:

Jamaica: (Cameron, 1922b; British Museum; Cameron collection).

7. MYLLAENA INDEFATIGABILIS Cameron

Myllaena indefatigabilis CAMERON, 1922b, p. 651.—BERNHAUER and SCHEERPELTZ, 1926, p. 507.

Records.—The following are the records known to me:

St. Lucia: (Cameron, 1922b; Cameron collection).

8. MYLLAENA OBSCURA Cameron

Myllaena obscura CAMERON, 1922b, p. 651.—BERNHAUER and SCHEERPELTZ, 1926, p. 508.

Records.—The following are the records known to me:

Hispaniola: HAITI (Cameron, 1922b; British Museum; Cameron collection).

Genus PRONOMAEA Erichson

Pronomaea ERICHSON, 1837, p. 378.
Pronomea REDTENBACHER, 1874, p. 73 (misspelling).

1. PRONOMAEA DEBILIS Cameron

Pronomaea debilis CAMERON, 1922b, p. 652.—BERNHAUER and SCHEERPELTZ, 1926, p. 510.

Records.—The following are the records known to me:

[**Jamaica:** (Cameron, 1922b; Bernhauer and Scheerpeltz, 1926).]
Tortola: (Cameron collection).

Remarks.—The Jamaican record is probably an error since no specimens in the Cameron collection are labeled Jamaica. Tortola is in the Virgin Islands.

Genus OLIGOTA Mannerheim

Oligota MANNERHEIM, 1830, p. 72.

1. OLIGOTA ALBIDICORNIS Bernhauer

Oligota albidicornis BERNHAUER, 1923b, p. 143.—BERNHAUER and SCHEERPELTZ, 1926, p. 512.

Records.—The following are the records known to me:

Guadeloupe: (Bernhauer, 1923).

2. OLIGOTA CADAVERINA Bierig

Oligota cadaverina Bierig, 1934d, p. 113, fig. 1.

Records.—The following are the records known to me:

Cuba: (Bierig, 1934).

3. OLIGOTA CENTRALIS Sharp

Oligota centralis Sharp, 1883, p. 293.—Fenyes, 1918, p. 56.—Cameron, 1922, p. 124.—Bernhauer and Scheerpeltz, 1926, p. 512.—Bierig, 1934, p. 114, fig. 2.

Records.—The following are the records known to me:

Cuba: (Bierig, 1934).
Central America: Guatemala (Sharp, 1883; Bierig, 1934).

4. OLIGOTA CHRYSOPYGA Kraatz

Oligota chrysopyga Kraatz, 1859, p. 45.—Fenyes, 1918, p. 56.—Bernhauer and Scheerpeltz, 1926, p. 512.—Bierig, 1934, pp. 113, 116.

Oligota ventralis Fauvel, 1889, p. 171.—Fenyes, 1918, p. 56.—Bernhauer and Scheerpeltz, 1926, p. 512.

Records.—The following are the records known to me:

Grenada: (British Museum; Cameron collection).
Africa: (Bernhauer and Scheerpeltz, 1926; etc.).
Orient: (Bernhauer and Scheerpeltz, 1926; etc.).

5. OLIGOTA HYPOCYPTINA Bernhauer

Oligota hypocyptina Bernhauer, 1923, p. 143.—Bernhauer and Scheerpeltz, 1926, p. 513.

Records.—The following are the records known to me:

Guadeloupe: (Bernhauer, 1923).

6. OLIGOTA LAXATA Cameron

Oligota laxata Cameron, 1922, p. 124.—Bernhauer and Scheerpeltz, 1926, p. 513.

Records.—The following are the records known to me.

Jamaica: (Cameron collection).
Grenada: (Cameron, 1922; British Museum).

7. OLIGOTA LUTEICORNIS Bierig

Oligota luteicornis Bierig, 1934, p. 119, figs. 5, 10.

Records.—The following are the records known to me:

Cuba: (Bierig, 1934).

8. OLIGOTA MACULICORNIS Cameron

Oligota maculicornis Cameron, 1922, p. 124.—Bernhauer and Scheerpeltz, 1926, p. 514.—Bierig, 1934, p. 117.

Records.—The following are the records known to me:

Cuba: (Bierig, 1934).
Hispaniola: Haiti (Cameron, 1922; Cameron collection).

9. OLIGOTA MINUTA Cameron

Oligota minuta Cameron, 1931, p. 82.—Scheerpeltz, 1934, p. 1532.

Records.—The following are the records known to me:

Grenada: (Cameron collection).
Trinidad: (Cameron, 1931; British Museum; Cameron collection).

10. OLIGOTA MINUTISSIMA Bernhauer

Oligota minutissima Bernhauer, 1923, p. 144.—Bernhauer and Scheerpeltz, 1926, p. 513. (Not Stephens, 1832; not Heer, 1841.)

Records.—The following are the records known to me:

Guadeloupe: (Bernhauer, 1923).

11. OLIGOTA PARVA Kraatz

Oligota pygmaea Kraatz, 1858b, p. 352. (Not Solier, 1849.)
Oligota parva Kraatz, 1862, p. 300.
Oligota contempta Wollaston, 1867, p. 231.
Oligota aliena Mulsant and Rey, 1873, p. 134.
Oligota californica Casey, 1911, p. 230.
Oligota congruens Casey, 1911, p. 230.
Oligota esmeraldae Casey, 1911, p. 231.

Records.—The following are the records known to me:

Jamaica: (Cameron collection).
Tortola: (Cameron collection).
St. Vincent: (British Museum; Cameron collection).
Grenada: (British Museum; Cameron collection).
South America: Argentina (Bernhauer and Scheerpeltz, 1926).
Central America: Mexico (Cameron collection).
North America: Nevada, California (Bernhauer and Scheerpeltz, 1926; etc.).
Europe: (Wollaston, etc.).
Orient: China (Cameron collection).

12. OLIGOTA RHOPALOCERA Bernhauer

Oligota rhopalocera Bernhauer, 1923, p. 145.—Bernhauer and Scheerpeltz, 1926, p. 516.—Bierig, 1934, p. 116.

Records.—The following are the records known to me:

Cuba: (Bierig, 1934).
St. Thomas: (Bernhauer, 1923).

13. OLIGOTA RUFA Cameron

Oligota rufa Cameron, 1922, p. 125.—Bernhauer and Scheerpeltz, 1926, p. 516.

Records.—The following are the records known to me:

Jamaica: (Cameron collection).
St. Lucia: (Cameron, 1922).

14. OLIGOTA SMITHI Cameron

Oligota smithi Cameron, 1922, p. 124.—Bernhauer and Scheerpeltz, 1926, p. 513.

Records.—The following are the records known to me:

Grenada: (Cameron, 1922; British Museum).

15. OLIGOTA TESTACEORUFA Bernhauer

Oligota testaceorufa Bernhauer, 1923, p. 144.—Bernhauer and Scheerpeltz, 1926, p. 513.

Records.—The following are the records known to me:

St. Thomas: (Bernhauer, 1923).

16. OLIGOTA TRICOLOR Bierig

Oligota tricolor Bierig, 1934, p. 116.

Records.—The following are the records known to me:

Cuba: (Bierig, 1934).

17. OLIGOTA ZONATA Bierig

Oligota zonata Bierig, 1934, p. 115.

Records.—The following are the records known to me:

Cuba: (Bierig, 1934).

18. OLIGOTA, species indeterminate

Hispaniola: Haiti (Cameron collection).
Tortola: (Cameron collection).

Genus THYREOXENUS Mann

Thyreoxenus Mann, 1923, p. 329.

1. THYREOXENUS PARVICEPS Mann

Thyreoxenus parviceps Mann, 1923, p. 330, 331.—Bernhauer and Scheerpeltz, 1926, p. 519.—Emerson, 1935, pp. 371, 372.

Records.—The following are the records known to me:

Trinidad: (Mann, 1923).
South America: British Guiana (Mann, 1923).

2. THYREOXENUS, species indeterminate

Trinidad: (Seevers, 1937).

Genus EBURNIOLA Mann

Eburniola Mann, 1923, p. 33.

1. EBURNIOLA LEUCOGASTER Mann

Eburniola leucogaster Mann, 1923, p. 33, fig. 31.—Bernhauer and Scheerpeltz, 1926, p. 519.—Emerson, 1935, pp. 369, 370, 371, 373, 381, 387, 389, fig. 2.

Records.—The following are the records known to me:

Trinidad: (Mann, 1923; Emerson, 1935).
South America: British Guiana (Mann, 1923; Emerson, 1935).

Genus THAXTERIA Fenyes

Thaxteria Fenyes, 1921, p. 17.

1. THAXTERIA INSULARIS Fenyes

Thaxteria insularis Fenyes, 1921, p. 17.—Bernhauer and Schubert, 1926, p. 521.

Records.—The following are the records known to me:

Grenada: (Fenyes, 1921).

Genus PERINTHUS Casey

Perinthus Casey, 1889c, p. 192.

1. PERINTHUS XENOCOSTALIS Seevers

Perinthus xenocostalis Seevers, 1937, p. 9, pl. 3, fig. 18.

Records.—The following are the records known to me:

Trinidad: (Seevers, 1937).
South America: British Guiana (Seevers, 1937.)

2. PERINTHUS DUDLEYANUS Casey

Perinthus dudleyanus Casey, 1889c, pp. 194, 196.—Seevers, 1937, pp. 9, 10, 11, pl. 3, fig. 19.

Records.—The following are the records known to me:

Trinidad: (Seevers, 1937).
South America: British Guiana, Ecuador (Seevers, 1937).
Central America: Panama (Casey, 1890; Seevers, 1937).

Genus BARYCHARA Sharp

Barychara Sharp, 1883, p. 292.

1. BARYCHARA FLAVIPENNIS Cameron

Barychara flavipennis Cameron, 1922, p. 125.—Bernhauer and Scheerpeltz, 1926, p. 521.

Records.—The following are the records known to me:

Hispaniola: Haiti (Cameron, 1922; Cameron collection).

Genus GNYPETOSOMA Cameron

Gnypetosoma Cameron, 1922, p. 127.

1. GNYPETOSOMA CALOCERA Cameron

Gnypetosoma calocera Cameron, 1922, p. 127.—Bernhauer and Schubert, 1926, p. 523.
Schistoglossa calocera Fauvel, MS.—Cameron, 1922, p. 127.

Records.—The following are the records known to me:

St. Vincent: (Cameron, 1922; British Museum).

2. GNYPETOSOMA FARREA Cameron

Gnypetosoma farrea Cameron, 1922, p. 128.—Bernhauer and Scheerpeltz, 1926, p. 523.
Schistoglossa farrea Fauvel MS.—Cameron, 1922, p. 128.

Records.—The following are the records known to me:

St. Vincent: (Cameron, 1922; British Museum).

Genus ALISALIA Casey

Alisalia Casey, 1911, p. 219.
Alysalia Fenyes, 1918, p. 67 (misspelling).

1. ALISALIA BRUNNEA Cameron

Alisalia brunnea Cameron, 1922, p. 126.—Bernhauer and Scheerpeltz, 1926, p. 524.

Records.—The following are the records known to me:

Hispaniola: Haiti (Cameron, 1922; Cameron collection).

2. ALISALIA PICEA Cameron

Alisalia picea Cameron, 1922, p. 126.—Bernhauer and Scheerpeltz, 1926, p. 524.

Records.—The following are the records known to me:

Hispaniola: Haiti (Cameron, 1922; Cameron collection).

Genus BRACHYCHARA Sharp

Brachychara Sharp, 1883, p. 267.

1. BRACHYCHARA ATERRIMA Cameron

Brachychara aterrima Cameron, 1922b, p. 637.—Bernhauer and Scheerpeltz, 1926, p. 526.

Records.—The following are the records known to me:

St. Vincent: (Cameron, 1922b; British Museum).

Genus GYROPHAENA Mannerheim

Gyrophaena Mannerheim, 1830, p. 74.

1. GYROPHAENA AENEICOLLIS Cameron

Gyrophaena aeneicollis Cameron, 1922b, pp. 639, 642.—Bernhauer and Scheerpeltz, 1926, p. 528.

Records.—The following are the records known to me:

St. Vincent: (Cameron, 1922b; British Museum).
Grenada: (Cameron, 1922b; British Museum; Cameron collection).

2. GYROPHAENA ATOMARIA Cameron

Gyrophaena atomaria Cameron, 1922b, pp. 637, 647.—Bernhauer and Scheerpeltz, 1926, p. 529.

Records.—The following are the records known to me:

Hispaniola: Haiti (Cameron, 1922b).
St. Vincent: (Cameron, 1922b; British Museum; Cameron collection).
Grenada: (Cameron, 1922b; British Museum; Cameron collection).

3. GYROPHAENA BOOPS Sharp

Gyrophaena boops Sharp, 1876, pp. 72, 78, 79.—Casey, 1906, p. 289.—Fenyes, 1918, p. 97.—Bernhauer and Scheerpeltz, 1926. p. 527.
Phanerota boops (Sharp) Casey, 1906, p. 289.

Records.—The following are the records known to me:

Trinidad: (British Museum).
South America: Brazil (Sharp, 1876; British Museum).

4. GYROPHAENA CONNEXA Cameron

Gyrophaena connexa Cameron, 1922b, pp. 638, 640.—Bernhauer and Scheerpeltz, 1926, p. 530.

Records.—The following are the records known to me:

Grenada: (Cameron, 1922b; British Museum; Cameron collection).

5. GYROPHAENA CORNUTA (Casey)

Eumicrota cornuta Casey, 1906, p. 285.—Leng and Mutchler, 1914, p. 407.
Gyrophaena cornuta (Casey) Bernhauer and Scheerpeltz, 1926, p. 535.

Records.—The following are the records known to me:

Cuba: Cayamas (Casey, 1906).

6. GYROPHAENA CUBENSIS (Casey)

Phanerota cubensis Casey, 1906, p. 288.—Leng and Mutchler, 1914, p. 407.
Gyrophaena cubensis (Casey) Fenyes, 1918, p. 97.—Bernhauer and Scheerpeltz, 1926, p. 527.

Records.—The following are the records known to me:

Cuba: Cayamas (Casey, 1906; Cameron collection).

7. GYROPHAENA DENSATA Cameron

Gyrophaena densata Cameron, 1922b, pp. 638, 646.—Bernhauer and Scheerpeltz, 1926, p. 530.

Records.—The following are the records known to me:

St. Vincent: (Cameron, 1922b; British Museum; Cameron collection).

8. GYROPHAENA FAUVELI Cameron

Gyrophaena fauveli Cameron, 1922b, pp. 639, 644.—Bernhauer and Scheerpeltz, 1926, p. 530.
Gyrophaena flavicornis Fauvel, MS.—Cameron, 1922b, p. 644.

Records.—The following are the records known to me:

St. Vincent: (Cameron, 1922b; British Museum; Cameron collection).

9. GYROPHAENA GRANIFERA Cameron

Gyrophaena granifera CAMERON, 1922b, pp. 638, 640.—BERNHAUER and SCHEERPELTZ, 1926, p. 531.

Records.—The following are the records known to me:

Jamaica: (Cameron, 1922b; Cameron collection).

10. GYROPHAENA HYDROCEPHALA Cameron

Gyrophaena hydrocephala CAMERON, 1922b, pp. 639, 645.—BERNHAUER and SCHEERPELTZ, 1926, p. 531.

Records.—The following are the records known to me:

St. Vincent: (Cameron, 1922b; British Museum; Cameron collection).
Grenada: (Cameron, 1922b; British Museum).

11. GYROPHAENA JAMAICENSIS Cameron

Gyrophaena jamaicensis CAMERON, 1922b, pp. 638, 641.—BERNHAUER and SCHEERPELTZ, 1926, p. 531.

Records.—The following are the records known to me:

Jamaica: (Cameron, 1922b; Cameron collection).

12. GYROPHAENA LAXATA Cameron

Gyrophaena laxata CAMERON, 1922b, pp. 638, 645.—BERNHAUER and SCHEERPELTZ, 1926, p. 531.

Records.—The following are the records known to me:

St. Vincent: (Cameron, 1922b; British Museum; Cameron collection).
Grenada: (British Museum; Cameron collection).

13. GYROPHAENA OBLITA Sharp

Gyrophaena oblita SHARP, 1883, p. 254.—FENYES, 1918, p. 101.—CAMERON, 1922b, p. 639.—BERNHAUER and SCHEERPELTZ, 1926, p. 535.

Records.—The following are the records known to me:

St. Lucia: (Cameron collection).
Central America: GUATEMALA (Sharp, 1883; Fenyes, 1918).

14. GYROPHAENA OBSCURIPES Cameron

Gyrophaena obscuripes CAMERON, 1922b, pp. 638, 639, 641.—BERNHAUER and SCHEERPELTZ, 1926, p. 533.

Records.—The following are the records known to me:

Jamaica: (Cameron, 1922b; Cameron collection).

15. GYROPHAENA PERSIMILIS Cameron

Gyrophaena persimilis CAMERON, 1922b, pp. 639, 644.—BERNHAUER and SCHEERPELTZ, 1926, p. 533.

Records.—The following are the records known to me:

St. Vincent: (Cameron, 1922b; British Museum; Cameron collection).

16. GYROPHAENA PICEICOLLIS Cameron

Gyrophaena piceicollis Cameron, 1922b, pp. 639, 642, 643, 646.—Bernhauer and Scheerpeltz, 1926, p. 533.

Records.—The following are the records known to me:

St. Vincent: (Cameron collection).
Grenada: (Cameron, 1922b; British Museum; Cameron collection).

17. GYROPHAENA PUNCTA Cameron

Gyrophaena puncta Cameron, 1922b, pp. 638, 647.—Bernhauer and Scheerpeltz, 1926, p. 534.

Records.—The following are the records known to me:

Hispaniola: Haiti (Cameron, 1922b; British Museum; Cameron collection).

18. GYROPHAENA QUASSA Sharp

Gyrophaena quassa Sharp, 1876, p. 76.—Fenyes, 1918, p. 100.—Cameron, 1922b, p. 638.—Bernhauer and Scheerpeltz, 1926, p. 534.

Records.—The following are the records known to me:

Grenada: (British Museum; Cameron collection).
South America: Brazil (Sharp, 1876; Fenyes, 1918; British Museum).

19. GYROPHAENA RUFULA Cameron

Gyrophaena rufula Cameron, 1922b, pp. 638, 646.—Bernhauer and Scheerpeltz, 1926, p. 534.

Records.—The following are the records known to me:

St. Vincent: (Cameron collection).
Grenada: (Cameron, 1922b; British Museum).

20. GYROPHAENA SMITHI Cameron

Gyrophaena smithi Cameron, 1922b, pp. 639, 643.—Bernhauer and Scheerpeltz, 1926, p. 534.

Records.—The following are the records known to me:

St. Vincent: (Cameron, 1922b; British Museum; Cameron collection).
Grenada: (Cameron, 1922b; British Museum; Cameron collection).

21. GYROPHAENA SPARSEPUNCTATA Cameron

Gyrophaena sparsepunctata Cameron, 1922b, pp. 638, 639, 641.—Bernhauer and Scheerpeltz, 1926, p. 534.

Records.—The following are the records known to me:

Jamaica: (Cameron, 1922b; Cameron collection).

22. GYROPHAENA SPLENDIDULA Erichson

Gyrophaena splendidula Erichson, 1839, p. 188.—Sharp, 1883, p. 260.—Fenyes, 1918, p. 99.—Bernhauer and Scheerpeltz, 1926, p. 534.

Records.—The following are the records known to me:

St. Thomas: (Erichson, 1839b; Fenyes, 1918).
South America: Brazil (Erichson, 1839b).

Genus DIESTOTA Mulsant and Rey

Diestota Mulsant and Rey, 1870, p. 194.
Apheloglossa Casey, 1893, p. 348.
Amenusa Casey, 1906, p. 349.
Pectusa Casey, 1911, p. 192.

1. DIESTOTA CAPITALIS Bernhauer and Scheerpeltz

Diestota puncticeps Cameron, 1922b, p. 633.—Bernhauer and Scheerpeltz, 1926, p. 538. (Not Sharp, 1880.)
Diestota capitalis Bernhauer and Scheerpeltz, 1926, p. 538.

Records.—The following are the records known to me:

St. Vincent: (British Museum).
Grenada: (Cameron, 1922b; British Museum).

2. DIESTOTA SPERATA Sharp

Diestota sperata Sharp, 1876, p. 47; 1883, pp. 247, 249, 250.—Bernhauer and Scheerpeltz, 1926, p. 539.

Records.—The following are the records known to me:

Cuba: (Leng and Mutchler, 1914).
Jamaica: (Leng and Mutchler, 1914).
Hispaniola: Haiti (Leng and Mutchler, 1941).
Guadeloupe: (Leng and Mutchler, 1914).
St. Vincent: (British Museum).
Grenada: (British Museum).
South America: Brazil (Sharp, 1876, 1883; British Museum).
Central America: Panama, Guatemala (Sharp, 1883; British Museum).

3. DIESTOTA LATICORNIS Sharp

Diestota laticornis Sharp, 1883, p. 248.—Fenyes, 1918, p. 77.—Notman, 1920, p. 717.—Bernhauer and Scheerpeltz, 1926, p. 538.

Records.—The following are the records known to me:

St. Vincent: (British Museum).
Grenadines: Mustique (British Museum).
Grenada: (British Museum).
Central America: Mexico, Guatemala, Nicaragua, Panama (Sharp, 1883; British Museum).

Genus COENONICA Kraatz

Coenonica Kraatz, 1857, p. 45.

1. COENONICA PUNCTICOLLIS Kraatz

Coenonica puncticollis Kraatz, 1857, p. 46.—Bernhauer and Scheerpeltz, 1926, p. 540.
Coenonica indica Motschulsky, 1858a, p. 258.
Coenonica cribriceps Sharp, 1869, p. 166.

Records.—The following are the records known to me:

St. Vincent: (British Museum).
Grenada: (British Museum).
Europe: (Bernhauer and Scheerpeltz, 1926; etc.).
Africa: (Bernhauer and Scheerpeltz, 1926; etc.).
Orient: CEYLON (British Museum).

Genus PLACUSA Erichson

Placusa ERICHSON, 1837, p. 370.

1. PLACUSA ANALIS Cameron

Placusa analis CAMERON, 1922b, p. 636.—BERNHAUER and SCHEERPELTZ, 1926, p. 542.

Records.—The following are the records known to me:

St. Vincent: (Cameron, 1922b; British Museum).

2. PLACUSA HETEROGASTER Cameron

Placusa heterogaster CAMERON, 1922b, pp. 636, 637.—BERNHAUER and SCHEERPELTZ, 1926, p. 542.

Records.—The following are the records known to me:

St. Vincent: (Cameron, 1922b; British Museum).

3. PLACUSA CAMERONI Bernhauer and Scheerpeltz

Placusa insularis CAMERON, 1922b, p. 635.—BERNHAUER and SCHEERPELTZ, 1926, p. 542. (Not Bernhauer, 1921.)
Placusa cameroni BERNHAUER and SCHEERPELTZ, 1926, p. 542.

Records.—The following are the records known to me:

St. Vincent: (Cameron, 1922b; British Museum).

4. PLACUSA LUCTUOSA Cameron

Placusa luctuosa CAMERON, 1922b, p. 637.—BERNHAUER and SCHEERPELTZ, 1926, p. 543.

Records.—The following are the records known to me:

St. Vincent: (Cameron, 1922b; British Museum).

Genus SILUSA Erichson

Silusa ERICHSON, 1837, p. 377.

1. SILUSA DIVERSICOLLIS Cameron

Silusa diversicollis CAMERON, 1922b, p. 634.—BERNHAUER and SCHEERPELTZ, 1926, p. 549.

Records.—The following are the records known to me:

St. Vincent: (Cameron, 1922b; British Museum).
Grenada: (Cameron, 1922b; British Museum).

2. SILUSA TENELLA Cameron

Silusa tenella CAMERON, 1922b, p. 634.—BERNHAUER and SCHEERPELTZ, 1926, p. 549.

Records.—The following are the records known to me:

St. Vincent: (Cameron, 1922b; British Museum).

Genus THECTURELLA Cameron

Thecturella CAMERON, 1922b, p. 649.

1. THECTURELLA INSIDIOSA Cameron

Thecturella insidiosa CAMERON, 1922b, p. 649.—BERNHAUER and SCHEERPELTZ, 1926, p. 564.
Homalota insidiosa FAUVEL MS.—CAMERON, 1922b, p. 649.

Records.—The following are the records known to me:

St. Vincent: (Cameron, 1922b; British Museum).
Grenada: (British Museum).

Genus BOLITOCHARA Mannerheim

Bolitochara MANNERHEIM, 1830, p. 75.
Bolithochara LAPORTE, 1834, p. 136 (misspelling).
Boletochara KRAATZ, 1856, p. 21 (misspelling).

1. BOLITOCHARA CINCTIGASTRA Bierig

Bolitochara (*Agaribiota*) *cinctigastra* BIERIG, 1937, p. 280, fig. 9.

Records.—The following are the records known to me:

Cuba: (Bierig, 1937).

Genus XENOBIOTA Bierig

Xenobiota BIERIG, 1938b, p. 144.

1. XENOBIOTA BERNHAUERI Bierig

Xenobiota bernhaueri BIERIG, 1938, pp. 143, 145, figs. 8, 10, 16.

Records.—The following are the records known to me:

Cuba: (Bierig, 1938).

Genus EUVIRA Sharp

Euvira SHARP, 1883, p. 278.

1. EUVIRA CUBANA Bierig

Euvira cubana BIERIG, 1934d, pp. 121, 122, 123, figs. 7, 11.

Records.—The following are the records known to me:

Cuba: (Bierig, 1934).

2. EUVIRA FLAVIPES Bierig

Euvira flavipes Bierig, 1934d, p. 123, fig. 13.

Records.—The following are the records known to me:

Cuba: (Bierig, 1934).

3. EUVIRA INSULARIS Cameron

Euvira insularis Cameron, 1922b, p. 648.—Bernhauer and Scheerpeltz, 1926, p. 570.

Records.—The following are the records known to me:

St. Vincent: (Cameron, 1922b; British Museum).

Genus FALAGRIA Samouelle

Falagria Samouelle, 1819, p. 177.

1. FALAGRIA BASIVENTRIS (Cameron)

Stenagria basiventris Cameron, 1923, p. 365.
Falagria basiventris (Cameron) Bernhauer and Scheerpeltz, 1926, p. 576.

Records.—The following are the records known to me:

Jamaica: (Cameron, 1923; Cameron collection).

2. FALAGRIA CEPHALOTES Cameron

Falagria (*Anaulacaspis*) *cephalotes* Cameron, 1923, p. 364.—Bernhauer and Scheerpeltz, 1926, p. 578.

Records.—The following are the records known to me:

Grenada: (Cameron, 1923; British Museum; Cameron collection).

3. FALAGRIA CONCINNA Erichson

Falagria concinna Erichson, 1839b, p. 51.
Falagria longipes Wollaston, 1871, p. 284.
Falagria fovea Sharp, 1874, p. 3.
Falagria parae Sharp, 1876, p. 41.
Falagria currax Sharp, 1880, p. 37.
Stenagria parae (Sharp) Sharp, 1883, pp. 238, 240.—Fenyes, 1920, p. 160.

Records.—The following are the records known to me:

St. Vincent: (British Museum; Cameron collection).
Grenada: (British Museum).
South America: Argentina, Bolivia, Brazil (Sharp, 1876; Fenyes, 1920; etc.; British Museum).
Central America: Mexico, Guatemala, Panama (Sharp, 1883; etc.).
Europe, Asia, Orient: (Bernhauer and Scheerpeltz, 1926; etc.).

4. FALAGRIA INFIMA Sharp

Falagria infima Sharp, 1883, p. 233.—Leng and Mutchler, 1914, p. 407.—Fenyes, 1920, p. 155.—Bernhauer and Scheerpeltz, 1926, p. 578.

Records.—The following are the records known to me:

Jamaica: (Cameron collection).
St. Thomas: (Sharp, 1883; Leng and Mutchler, 1914).
Tortola: (Cameron collection).
St. Vincent: (British Museum).
Grenada: (Cameron collection; British Museum).
Central America: GUATEMALA, MEXICO (British Museum; Cameron collection), GUATEMALA (Sharp, 1883; Fenyes, 1920).

Genus MERONERA Sharp

Meronera SHARP, 1887, p. 779.

1. MERONERA ALBICINCTA (Erichson)

Falagria albicincta ERICHSON, 1839b, p. 56.
Meronera albocincta LENG and MUTCHLER, 1914, p. 407 (misspelling).
Meronera albicincta (Erichson) BERNHAUER and SCHEERPELTZ, 1926, p. 580.

Records.—The following are the records known to me:

Cuba: (Leng and Mutchler, 1914).
Jamaica: (Cameron collection).
Grenada: (British Museum; Cameron collection).
South America: (COLOMBIA, VENEZUELA, BRAZIL (Fenyes, 1920; etc.).
Central America: MEXICO (Bernhauer and Scheerpeltz, 1926; etc.).

Genus NEOLARA Sharp

Neolara SHARP, 1883, p. 231.

1. NEOLARA ALBOGUTTATA (Erichson)

Falagria alboguttata ERICHSON, 1839b, p. 56.
Neolara alboguttata (ERICHSON) SHARP, 1883, pp. 231, 232.—BERNHAUER and SCHEERPELTZ, 1926, p. 580.

Records.—The following are the records known to me:

Grenada: (British Museum).
South America: BRAZIL (Sharp, 1883; Cameron collection), COLOMBIA (Sharp, 1883).

2. NEOLARA CUBANA Casey

Neolara cubana CASEY, 1906, p. 189.—BERNHAUER and SCHEERPELTZ, 1926, p. 580.

Records.—The following are the records known to me:

Cuba: (Leng and Mutchler, 1914; Fenyes, 1920), Bahia Honda (Casey, 1906).

Genus PSEUDOGNYPETA Cameron

Pseudognypeta CAMERON, 1923, p. 365.

1. PSEUDOGNYPETA PICTA Cameron

Pseudognypeta picta CAMERON, 1923, p. 366.—BERNHAUER and SCHEERPELTZ, 1926, p. 587.

Records.—The following are the records known to me:

Jamaica: (Cameron, 1923; British Museum; Cameron collection).

Genus GNYPETA Thomson

Gnypeta THOMSON, 1858, p. 33.

1. GNYPETA BASALIS Cameron

Gnypeta basalis CAMERON, 1923, p. 368.—BERNHAUER and SCHEERPELTZ, 1926, p. 587.

Records.—The following are the records known to me:

Jamaica: (Cameron collection).
St. Lucia: (Cameron, 1923).

2. GNYPETA BASIVENTRIS Cameron

Gnypeta basiventris CAMERON. 1923. p. 367.—BERNHAUER and SCHEERPELTZ, 1926, p. 587.

Records.—The following are the records known to me:

Grenada: (Cameron, 1923; British Museum).

3. GNYPETA FRAGILIS Sharp

Gnypeta fragilis SHARP, 1883, p. 227.—FENYES, 1912, p. 111; 1920, p. 164.—CAMERON, 1923, p. 368.—BERNHAUER and SCHEERPELTZ, 1926, p. 588.

Records.—The following are the records known to me:

Jamacia: (Cameron collection).
Central America: GUATEMALA (Sharp, 1883; Fenyes, 1920).

4. GNYPETA SANCTAE-LUCIAE Cameron

Gnypeta sanctae-luciae CAMERON, 1923, p. 368.—BERNHAUER and SCHUBERT, 1926, p. 589.

Records.—The following are the records known to me:

St. Lucia: (Cameron, 1923; Cameron collection).

Genus ATHETA Thomson

Atheta THOMSON, 1859, p. 39.

1. ATHETA ACCEDENS Cameron

Atheta accedens CAMERON, 1923, p. 373.—BERNHAUER and SCHEERPELTZ, 1926, p. 638.

Records.—The following are the records known to me:

Grenadines: Mustique (Cameron, 1923; British Museum).
Grenada: (Cameron, 1923; British Museum).

2. ATHETA ALBIPENNIS Cameron

Atheta albipennis CAMERON, 1923, pp. 372, 373.—BERNHAUER and SCHEERPELTZ, 1926, p. 638.

Records.—The following are the records known to me:

Grenadines: Mustique (Cameron, 1923; British Museum; Cameron collection).
Grenada: (Cameron, 1923; British Museum; Cameron collection).

3. ATHETA ALTERNATA (Erichson)

Homalota alternata Erichson, 1839b, p. 119.—Leng and Mutchler, 1914, p. 407.—Bernhauer and Scheerpeltz, 1926, p. 631.
Atheta alternata (Erichson) Bernhauer and Scheerpeltz, 1926, p. 631.

Records.—The following are the records known to me:

Hispaniola: Haiti (Cameron collection).
St. Thomas: (Erichson, 1839b; Leng and Mutchler, 1914).
Tortola: (Cameron collection).
Grenadines: Mustique (British Museum; Cameron collection).
Grenada: (British Museum).

4. ATHETA ANOMALA Cameron

Atheta anomala Cameron, 1923, p. 382.—Bernhauer and Scheerpeltz, 1926, p. 672.

Records.—The following are the records known to me:

Jamaica: (Cameron collection).
Hispaniola: Haiti (Cameron, 1923).

5. ATHETA ANTILLARUM Cameron

Atheta antillarum Cameron, 1923, p. 370.—Bernhauer and Scheerpeltz, 1926, p. 627.
Phytosus antillarum Fauvel, MS.—Cameron, 1923, p. 370.

Records.—The following are the records known to me:

Grenadines: Mustique (Cameron, 1923; British Museum).

6. ATHETA CACOPHILA Cameron

Atheta cacophila Cameron, 1923, p. 380.—Bernhauer and Scheerpeltz, 1926, p. 672.
Atheta discrepans Fauvel, MS.—Cameron 1923, p. 380. (Not Sharp, 1883; not Casey, 1910.)

Records.—The following are the records known to me:

St. Vincent: (British Museum).
Grenadines: (Cameron, 1923), Mustique (British Museum; Cameron collection).
Grenada: (British Museum; Cameron collection).

7. ATHETA CINGULIFERA Sharp

Atheta cingulifera Sharp, 1883, p. 194.—Bernhauer and Scheerpeltz, 1926, p. 640.

Records.—The following are the records known to me:

St. Vincent: (British Museum; Cameron collection).
Grenada: (British Museum; Cameron collection).
Central America: Guatemala (Sharp, 1883; British Museum).
North America: Texas (British Museum).

8. ATHETA COGNATA Sharp

Atheta cognata SHARP, 1883, p. 181.—BERNHAUER and SCHEERPELTZ, 1926, p. 669.

Records.—The following are the records known to me:

Hispaniola: HAITI (Cameron collection).
St. Vincent: (Cameron collection).
Central America: (Sharp, 1883), MEXICO (Cameron collection).

9. ATHETA COMBUSTA Cameron

Atheta combusta CAMERON, 1923, p. 376.—BERNHAUER and SCHEERPELTZ, 1926, p. 640.

Records.—The following are the records known to me:

St. Vincent: (Cameron, 1923; British Museum; Cameron collection).

10. ATHETA CONFORMIS (Erichson)

Homalota conformis ERICHSON, 1839b, p. 108.
Atheta conformis (Erichson) FENYES, 1920, p. 199.—BERNHAUER and SCHEERPELTZ, 1926, p. 640.

Records.—The following are the records known to me:

Jamaica: (Cameron collection).
St. Lucia: (Cameron collection).
St. Vincent: (British Museum; Cameron collection).
Grenada: (British Museum).
South America: COLOMBIA (Erichson, 1839b; Fenyes, 1920), BRAZIL (British Museum; Cameron collection).

11. ATHETA CRISTOFERA Cameron

Atheta cristofera CAMERON, 1923, p. 372.—BERNHAUER and SCHEERPELTZ, 1926, p. 641.

Records.—The following are the records known to me:

Jamaica: (Cameron, 1923; British Museum; Cameron collection).

12. ATHETA CROCEICORNIS Cameron

Atheta croceicornis CAMERON, 1923, p. 374.—BERNHAUER and SCHEERPELTZ, 1926, p. 641.

Records.—The following are the records known to me:

St. Vincent: (Cameron, 1923: British Museum).
Grenada: (Cameron, 1923; British Museum).

13. ATHETA DECIPULA (Erichson)

Homalota decipula ERICHSON, 1839b, p. 119.
Atheta decipula (Erichson) FENYES, 1920, p. 227.—BERNHAUER and SCHEERPELTZ, 1926, p. 641.

Records.—The following are the records known to me:

Puerto Rico: (Erichson, 1839b; Fenyes, 1920).

14. ATHETA DENTELLA Cameron

Atheta dentella CAMERON, 1923, pp. 373, 374.—BERNHAUER and SCHEERPELTZ, 1926, p. 641.

Records.—The following are the records known to me:

St. Vincent: (Cameron, 1923; British Museum; Cameron collection).

15. ATHETA DICHROA (Gravenhorst)

Aleochara dichroa GRAVENHORST, 1802, p. 186; 1806 p. 158.

Homalota dichroa (Gravenhorst) ERICHSON, 1839b, p. 107.

Homalota propinqua ERICHSON, 1839b, p. 108.—LENG and MUTCHLER, 1914, p. 407.

Atheta dichroa (Gravenhorst) BERNHAUER, 1907, p. 385.—FENYES, 1908, p. 60.—BLATCHLEY, 1910, pp. 352, 353.—FENYES, 1920, p. 199.—BERNHAUER and SCHEERPELTZ, 1926, p. 613.

Atheta propinqua (Erichson) FENYES, 1920, p. 199.—BERNHAUER and SCHEERPELTZ, 1926, p. 613.

Records.—The following are the records known to me:

St. Thomas: (Fenyes, 1920, as *propinqua*).
Tortola: (Cameron collection).
St. John: (Fenyes, 1920, as *propinqua*).
St. Vincent: (British Museum).
Grenada: (British Museum; Cameron collection).
South America: BRAZIL (Cameron collection).
North America: MISSOURI, WEST VIRGINIA, CALIFORNIA, PENNSYLVANIA, INDIANA, QUEBEC, MANITOBA (Bernhauer, 1907; Blatchley, 1910).

16. ATHETA FATUOSA Cameron

Atheta fatuosa CAMERON, 1923, p. 377.—BERNHAUER and SCHEERPELTZ, 1926, p. 612.

Records.—The following are the records known to me:

Jamaica: (Cameron, 1923; British Museum; Cameron collection).

17. ATHETA FLAVIPENNIS (Erichson)

Homalota flavipennis ERICHSON, 1839b, p. 118.—LENG and MUTCHLER, 1914, p. 407.

Atheta flavipennis (Erichson) FENYES, 1920, p. 227.—BERNHAUER and SCHEERPELTZ, 1926, p. 643.

Records.—The following are the records known to me:

St. John: (Erichson, 1839b; Fenyes, 1920).

18. ATHETA FLAVOTERMINATA Cameron

Atheta flavoterminata CAMERON, 1923, p. 381.—BERNHAUER and SCHEERPELTZ, 1926, p. 673.

Records.—The following are the records known to me:

Jamaica: (Cameron, 1923; British Museum; Cameron collection).

19. ATHETA FLOTATA Cameron

Atheta flotata CAMERON, 1923, p. 379.—BERNHAUER and SCHEERPELTZ, 1926, p. 663.

Records.—The following are the records known to me:

Jamaica: (Cameron, 1923; British Museum; Cameron collection).

20. ATHETA GUADALUPENSIS Cameron

Atheta guadalupensis Cameron, 1923, p. 375.—Bernhauer and Scheerpeltz, 1926, p. 644.

Records.—The following are the records known to me:

St. Vincent: (Cameron, 1923; British Museum; Cameron collection).
Grenadines: Mustique (British Museum).
Grenada: (Cameron, 1923; British Museum; Cameron collection).

21. ATHETA GUATEMALAE Bernhauer and Scheerpeltz

Atheta pumila Sharp, 1883, p. 186.—Bernhauer and Scheerpeltz, 1926, p. 667. (Not Kraatz, 1858.)
Atheta guatemalae Bernhauer and Scheerpeltz, 1926, p. 667.

Records.—The following are the records known to me:

Cayman Islands: (Cameron collection).
Jamaica: (Cameron collection).
Tortola: (Cameron collection).
Grenada: (British Museum).
Central America: Guatemala (British Museum; Sharp, 1883).

22. ATHETA IMPAVIDA Cameron

Atheta impavida Cameron, 1923, p. 370.—Bernhauer and Scheerpeltz, 1926, p. 633.

Records.—The following are the records known to me:

Grenada: (Cameron, 1923; British Museum; Cameron collection).

23. ATHETA INSULARUM Cameron

Atheta insularum Cameron, 1923, p. 371.—Bernhauer and Scheerpeltz 1926, p. 644.
Ocalea insularum Fauvel, MS.—Cameron, 1923, p. 371.

Records.—The following are the records known to me:

St. Vincent: (Cameron, 1923; British Museum).
Grenada: (Cameron, 1923; British Museum; Cameron collection).

24. ATHETA JAMAICENSIS Cameron

Atheta jamaicensis Cameron, 1923, p. 378.—Bernhauer and Scheerpeltz, 1926, p. 657.

Records.—The following are the records known to me:

Jamaica: (Cameron, 1923; Cameron collection).

25. ATHETA MELANURA (Erichson)

Homalota melanura Erichson, 1839b, p. 117.—Leng and Mutchler, 1914, p. 407.
Atheta melanura (Erichson) Bernhauer and Scheerpeltz, 1926, p. 645.
Atheta menalura Fenyes, 1920, p. 227 (misspelling).

Records.—The following are the records known to me:

Puerto Rico: (Erichson, 1839b; Fenyes, 1920).
St. John: (Erichson, 1839b; Fenyes, 1920).

26. ATHETA NIGRIPENNIS (Erichson)

Homalota nigripennis ERICHSON, 1839b, p. 119.—LENG and MUTCHLER, 1914, p. 407.

Atheta nigripennis (Erichson) BERNHAUER and SCHEERPELTZ, 1926, p. 634.

Records.—The following are the records known to me:

St. John: (Erichson, 1839b).
St. Vincent: (British Museum; Cameron collection).
Grenada: (British Museum).

27. ATHETA PLURISPINOSA Cameron

Atheta plurispinosa CAMERON, 1923, p. 375.—BERNHAUER and SCHEERPELTZ, 1926, p. 648.

Records.—The following are the records known to me:

Jamaica: (Cameron, 1923).
Hispaniola: HAITI (Cameron collection; British Museum).

28. ATHETA REDUCTA Cameron

Atheta reducta CAMERON, 1923, p. 380.—BERNHAUER and SCHEERPELTZ, 1926, p. 677.

Records.—The following are the records known to me:

St. Vincent: (Cameron, 1923; British Museum).

29. ATHETA SORDIDULA (Erichson)

Homalota sordidula ERICHSON, 1839b, p. 335.

Atheta sordidula (Erichson) BERNHAUER and SCHEERPELTZ, 1926, p. 668.

Records.—The following are the records known to me:

Cuba: (Cameron collection).
North America: WEST VIRGINIA (Bernhauer, 1907).
Europe: (Bernhauer and Scheerpeltz, 1926; etc.).

30. ATHETA STAGNICOLA Cameron

Atheta stagnicola CAMERON, 1923, p. 379.—BERNHAUER and SCHEERPELTZ, 1926, p. 677.

Records.—The following are the records known to me:

Grenada: (Cameron, 1923; British Museum; Cameron collection).

31. ATHETA SUBCOMBUSTA Cameron

Atheta subcombusta CAMERON, 1923, p. 377.—BERNHAUER and SCHEERPELTZ, 1926, p. 650.

Records.—The following are the records known to me:

Jamaica: (Cameron, 1923; Cameron collection).

32. ATHETA SUBOBLITA Cameron

Atheta suboblita CAMERON, 1923, p. 377.—BERNHAUER and SCHEERPELTZ, 1926, p. 650.

Records.—The following are the records known to me:

Hispaniola: HAITI (Cameron, 1923; Cameron collection).

33. ATHETA TENTATIVA Cameron

Atheta tentativa CAMERON, 1923, p. 369.—BERNHAUER and SCHEERPELTZ, 1926, p. 619.

Records.—The following are the records known to me:

Jamaica: (Cameron, 1923).
Hispaniola: Haiti (Cameron collection).

Genus ALEUONOTA Thomson

Alevonota THOMSON, 1858, p. 35.
Aleuonota THOMSON, 1861, p. 52.
Liota MULSANT and REY, 1875, p. 124.

1. ALEUONOTA CARINELLA Cameron

Aleuonota carinella CAMERON, 1923, p. 368.—BERNHAUER and SCHEERPELTZ, 1926, p. 679.

Records.—The following are the records known to me:

St. Vincent: (Cameron, 1923).

Genus GUAJIRA Bierig

Guajira BIERIG, 1938, p. 146.

1. GUAJIRA CUBANA Bierig

Guajira cubana BIERIG, 1938, pp. 143, 146, figs. 12, 14, 17.

Records.—The following are the records known to me:

Cuba: (Bierig, 1938).

Genus MIMACROTONA Cameron

Mimacrotona CAMERON, 1920, p. 268.

1. MIMACROTONA CINGULATA Cameron

Mimacrotona cingulata CAMERON, 1920, p. 268.

Records.—The following are the records known to me:

St. Vincent: (British Museum).
Grenada: (British Museum).
Orient: Singapore (Cameron, 1920).

Genus PSEUDOTHAMIARAEA Cameron

Pseudothamiaraea CAMERON, 1923, p. 363.

1. PSEUDOTHAMIARAEA BRUNNEA Cameron

Pseudothamiaraea brunnea CAMERON, 1923, p. 364.—BERNHAUER and SCHEERPELTZ, 1926, p. 681.

Records.—The following are the records known to me:

Hispaniola: HAITI (Cameron, 1923; Cameron collection).

Genus ZYRAS Stephens

Zyras STEPHENS, 1832, p. 430.
Myrmedonia ERICHSON, 1837, p. 286.

1. ZYRAS CLAVATA Cameron

Zyras clavata CAMERON, 1923, p. 384.—BERNHAUER and SCHEERPELTZ, 1926, p. 696.

Records.—The following are the records known to me:

Grenada: (Cameron, 1923; British Museum).

2. ZYRAS DISTINCTUS Bierig

Zyras distinctus BIERIG, 1937, p. 281, figs. 10, 11.

Records.—The following are the records known to me:

Cuba: (Bierig, 1937).

3. ZYRAS MUNDA (Erichson)

Myrmedonia munda ERICHSON, 1839b, p. 44.—SOLSKY, 1869, p. 258.—LENG and MUTCHLER, 1914, p. 407.
Zyras munda (Erichson) BERNHAUER and SCHEERPELTZ, 1926, p. 702.

Records.—The following are the records known to me:

St. Thomas: (Erichson, 1839b; Leng and Mutchler, 1914; British Museum).
Grenada: (British Museum).

4. ZYRAS RHOPALOMERA Cameron

Zyras rhopalomera CAMERON, 1923, p. 385.—BERNHAUER and SCHEERPELTZ, 1926, p. 703.

Records.—The following are the records known to me:

Grenada: (Cameron, 1923; British Museum).

5. ZYRAS SMITHI Cameron

Zyras smithi CAMERON, 1923, p. 382.—BERNHAUER and SCHEERPELTZ, 1926, p. 705.
Zyras rufiventris FAUVEL, MS.—CAMERON, 1923, p. 382.

Records.—The following are the records known to me:

Grenada: (Cameron, 1923; British Museum).

6. ZYRAS WATERHOUSEI Cameron

Zyras waterhousei CAMERON, 1923, p. 383.—BERNHAUER and SCHEERPELTZ, 1926, p. 706.

Records.—The following are the records known to me:

St. Vincent: (British Museum).
Grenada: (Cameron, 1923; British Museum).

Genus TINOTOMA Cameron

Tinotoma CAMERON, 1923, p. 386.

1. TINOTOMA RUFOTESTACEA Cameron

Tinotoma rufotestacea CAMERON, 1923, p. 386.—BERNHAUER and SCHEERPELTZ, 1926, p. 714.

Records.—The following are the records known to me:

Grenada: (Cameron, 1923).

Genus HOPLANDRIA Kraatz

Hoplandria KRAATZ, 1857b, p. 9.

1. HOPLANDRIA HETERODON Cameron

Hoplandria heterodon CAMERON, 1923, p. 390.—BERNHAUER and SCHEERPELTZ, 1926, p. 716.

Records.—The following are the records known to me:

St. Vincent: (Cameron, 1923; British Museum; Cameron collection).

2. HOPLANDRIA OBLIQUA Cameron

Hoplandria obliqua CAMERON, 1923, p. 391.—BERNHAUER and SCHEERPELTZ, 1926, p. 716.

Records.—The following are the records known to me:

St. Vincent: (Cameron, 1923; British Museum; Cameron collection).

3. HOPLANDRIA SMITHI Cameron

Hoplandria smithi CAMERON, 1923, p. 390.—BERNHAUER and SCHEERPELTZ, 1926, p. 717.

Records.—The following are the records known to me:

Grenada: (Cameron, 1923; British Museum).

4. HOPLANDRIA TERMINATA (Erichson)

Homalota terminata ERICHSON, 1839b, p. 130.—KRAATZ, 1858, p. 196.
Hoplandria terminata (Erichson) LENG and MUTCHLER, 1914, p. 407.—FENYES, 1918, p. 23; 1920, p. 308.—WOLCOTT, 1924, p. 79; 1936, p. 198.—BERNHAUER and SCHEERPELTZ, 1926, p. 717.

Records.—The following are the records known to me:

Puerto Rico: (Erichson, 1839b).

5. HOPLANDRIA, species indeterminate

Hispaniola: HAITI (Cameron collection).

Genus PHLOEOPORA Erichson

Phloeopora ERICHSON, 1837, p. 311.

1. PHLOEOPORA OCCIDENTALIS Cameron

Phloeopora occidentalis CAMERON, 1923, p. 388.—BERNHAUER and SCHEERPELTZ, 1926, p. 720.

Records.—The following are the records known to me:

Cuba: (Cameron collection).
Hispaniola: HAITI (Cameron, 1923; Cameron collection).

2. PHLOEOPORA PRODUCTA Cameron

Phloeopora producta CAMERON, 1923, p. 388.—BERNHAUER and SCHEERPELTZ, 1926, p. 720.

Records.—The following are the records known to me:

Hispaniola: HAITI (Cameron, 1923; Cameron collection).

3. PHLOEOPORA RELIGATA Erichson

Phloeopora religata ERICHSON, 1839b, p. 79.—BERNHAUER and SCHEERPELTZ, 1926, p. 720.

Records.—The following are the records known to me:

Puerto Rico: (Erichson, 1839b).

Genus OCALEA Erichson

Ocalea ERICHSON, 1837, p. 298.

1. OCALEA, species indeterminate

West Indies: (British Museum).

Genus TERMITOGASTER Casey

Termitogaster CASEY, 1889, p. 63.

1. TERMITOGASTER BREVIS Mann

Termitogaster brevis MANN, 1923, p. 344.—BERNHAUER and SCHEERPELTZ, 1926, p. 734.

Records.—The following are the records known to me:

Trinidad: St. Joseph (Mann, 1923).
South America: BRITISH GUIANA (Mann, 1923).

2. TERMITOGASTER EMERSONI Mann

Termitogaster emersoni MANN, 1923, p. 342.—BERNHAUER and SCHEERPELTZ, 1926, p. 734.

Records.—The following are the records known to me:

Trinidad: St. Joseph (Mann, 1923).
South America: BRITISH GUIANA (Mann, 1923).

Genus TERMITOPHYA Wasmann

Termitophya WASMANN, 1903, p. 95.

1. TERMITOPHYA FLAVIVENTRIS Mann

Termitophya flaviventris MANN, 1923, p. 352.—BERNHAUER and SCHEERPELTZ, 1926, p. 736.

Records.—The following are the records known to me:

Trinidad: St. Joseph (Mann, 1923).
South America: British Guiana (Mann, 1936).

Genus EUTHORAX Solier

Euthorax Solier, 1849, p. 345.
Myrmecochara Kraatz, 1857b, p. 40.
Campoporus Lynch, 1884, p. 64.
Camponotus Fauvel, 1887, p. 230 (error).
Eurynotida Casey, 1906, p. 343.
Dinusina Bernhauer, 1908a, p. 249.

1. EUTHORAX PICTIPENNIS Kraatz

Euthorax pictipennis Kraatz, 1857, p. 41.—Sharp, 1883, p. 163.—Bernhauer and Scheerpeltz, 1926, p. 738.

Records.—The following are the records known to me:

St. Vincent: (British Museum).
Central America: Mexico (Sharp, 1883).
North America: Louisiana (Bernhauer and Scheerpeltz, 1926).

Genus OCYUSA Kraatz

Ocyusa Kraatz, 1856, p. 156.

1. OCYUSA GRANELLA Cameron

Ocyusa granella Cameron, 1923, p. 387.—Bernhauer and Scheerpeltz, 1926, p. 743.
Schistoglossa granella Fauvel, MS.—Cameron, 1923, p. 387.

Records.—The following are the records known to me:

Grenada: (Cameron, 1923; British Museum; Cameron collection).

Genus ALEOCHARA Gravenhorst

Aleochara Gravenhorst, 1802, p. 67.
Aleohcara Sahlberg, 1834, p. 351 (misspelling).
Aleochora Fenyes, 1918, p. 9 (misspelling).

1. ALEOCHARA BIMACULATA Gravenhorst

Aleochara bimaculata Gravenhorst, 1802, p. 187.—Leng and Mutchler, 1914, p. 407.—Bernhauer and Scheerpeltz, 1926, p. 792.
Aleochara duplicata Erichson, 1839b, p. 167.
Aleochara alticola Sharp, 1883, p. 148.

Records.—The following are the records known to me:

Hispaniola: Haiti (Leng and Mutchler, 1914).
South America: Colombia (Bernhauer and Scheerpeltz, 1926).
Central America: Mexico, Guatemala (Bernhauer and Scheerpeltz, 1926; etc.).
North America: (Gravenhorst, 1802; etc.).

2. ALEOCHARA CAMERONI Bernhauer and Scheerpeltz

Aleochara bugnioni Cameron, 1923, p. 389. (Not Fauvel, 1901.)
Aleochara cameroni Bernhauer and Scheerpeltz, 1926, p. 726.

Records.—The following are the records known to me:

St. Vincent: (Cameron, 1923; British Museum; Cameron collection).
Grenada: (Cameron, 1923; British Museum).

3. ALEOCHARA LATERALIS Erichson

Aleochara lateralis Erichson, 1839b, p. 161.—Fauvel, 1863, p. 428.—Bernhauer and Scheerpeltz, 1926, p. 778.
Aleochara bonariensis Lynch, 1884, p. 70.—Bernhauer and Scheerpeltz, 1926, p. 778.

Records.—The following are the records known to me:

Cuba: (Fauvel, 1863).
South America: Brazil, Colombia (Fauvel, 1863).

4. ALEOCHARA NIGROCOERULEA Cameron

Aleochara nigrocoerulea Cameron, 1923, p. 389.
Aleochara nigrocaerulea Bernhauer and Scheerpeltz, 1926, p. 778 (misspelling).

Records.—The following are the records known to me:

Jamaica: (Cameron, 1923; Cameron collection).

5. ALEOCHARA NOTULA Erichson

Aleochara notula Erichson, 1839b, p. 167.—DuVal, 1857, p. 32.—Chevrolat and Fauvel, 1863, p. 429.—Sharp, 1883, pp. 148, 149.—Fleutiaux and Sallé, 1889, p. 379.—Villada, 1901, p. 27.—Fenyes, 1908, p. 65.—Leng and Mutchler, 1914, p. 407.—Fenyes, 1920, p. 413.—Bernhauer and Scheerpeltz, 1926, p. 794.
Aleochara duplicata Lynch, 1884, p. 78.—Fenyes, 1920, p. 413. (Not Erichson, 1839.)
Aleochara signaticollis Fairmaire and Germain, 1861, p. 413.—Fauvel, 1866, pp. 285, 288.—Fauvel, 1868, p. 63.—Sharp, 1883, p. 148.—Fenyes, 1920, p. 413.

Records.—The following are the records known to me:

Cuba: (DuVal, 1857; Chevrolat and Fauvel, 1863; Leng and Mutchler, 1914).
Jamaica: (Cameron collection).
St. Thomas: (Erichson, 1839b; DuVal, 1857; Chevrolat and Fauvel, 1863; Leng and Mutchler, 1914; Fenyes, 1920.)
Guadeloupe: (Fleutiaux and Sallé, 1889; Leng and Mutchler, 1914).
St. Vincent: (British Museum).
Grenadines: Mustique (British Museum).
South America: (British Museum; Cameron collection), Chile (Fairmaire and Germain, 1861, as *signaticollis;* Fauvel, 1866, 1868; Fenyes, 1920; Sharp, 1883), Argentina (Fenyes, 1920).
Central America: Mexico, Guatemala, Nicaragua (Sharp, 1883), Mexico (Villada, 1901).
North America: (Fenyes, 1920).

6. ALEOCHARA PUBERULA Klug

Aleochara puberula KLUG, 1832, p. 139.
Aleochara deserta ERICHSON, 1839b, p. 173.
Aleochara vaga ERICHSON, 1839b, p. 172.
Aleochara decorata AUBÉ, 1850, p. 311.
Aleochara armitagei WOLLASTON, 1854, p. 559.
Aleochara brunnescens MOTSCHULSKY, 1858, p. 243.
Aleochara sanguinolenta MOTSCHULSKY, 1858, p. 241.
Aleochara dubia FAUVEL, 1863, p. 428.
Aleochara analis MACLEAY, 1873, p. 135.
Aleochara major EICHELBAUM, 1911, p. 176.

Records.—The following are the records known to me:

Cuba: (Fauvel, 1863, as *dubia*).
Cosmopolitan: (Bernhauer and Scheerpeltz, 1926, etc.).

7. ALEOCHARA TAENIATA Erichson

Aleochara taeniata ERICHSON, 1839b, p. 165.—SHARP, 1883, pp. 150, 151.—FLEUTIAUX and SALLÉ, 1889, p. 379.—LENG and MUTCHLER, 1914, p. 407.—FENYES, 1920, p. 404.—PLAVILSTSCHIKOV, 1929, p. 30.—BERNHAUER and SCHEERPELTZ, 1926, p. 783. (Not Solksy.)
Aleochara lapidicola SAHLBERG, 1844, p. 517.—FENYES, 1920, p. 404.
Aleochara oxypodia SHARP, 1883, pp. 150, 151; 1887, p. 776.—FENYES, 1920, p. 404.
Aleochara simulatrix SHARP, 1883, p. 151; 1887, p. 776.—FENYES, 1920, p. 404.—BERNHAUER and SCHEERPELTZ, 1926, p. 783.

Records.—The following are the records known to me:

Jamaica: (Cameron collection).
St. John: (Erichson, 1839b; Sharp, 1883; Fenyes, 1920).
Guadeloupe: (Fleutiaux and Sallé, 1889; Leng and Mutchler, 1914).
St. Vincent: (British Museum).
Grenada: (Cameron collection; British Museum, as *simulatrix*).
South America: BRAZIL (Sahlberg, 1844, as *lapidicola;* British Museum; Fenyes, 1920); CAYENNE, PERU (Sharp, 1883), PERU (Plavitschikov, 1929).
Central America: GUATEMALA (Sharp, 1883, as *simulatrix;* Fenyes, 1920; British Museum), GUATEMALA, PANAMA (Sharp, 1883, as *oxypodia*), PANAMA (Sharp, 1887, as *similatrix*).
North America: ARIZONA (Fenyes, 1920).

8. ALEOCHARA VERBERANS Erichson

Aleochara verberans ERICHSON, 1839b, p. 164.—CHEVROLAT and FAUVEL, 1863, p. 428.—SHARP, 1883, p. 149.—LENG and MUTCHLER, 1914, p. 407.—FENYES, 1920, p. 410.—BERNHAUER and SCHEERPELTZ, 1926, p. 788.

Records.—The following are the records known to me:

Cuba: (Chevrolat and Fauvel, 1863; Leng and Mutchler, 1914; British Museum).
South America: BRAZIL, COLOMBIA (Erichson, 1839b; Chevrolat and Fauvel, 1863; Sharp, 1883), BRAZIL (Fenyes, 1920; British Museum), ARGENTINA (Bernhauer and Scheerpeltz, 1926).
Central America: MEXICO (Sharp, 1883; British Museum).

SYSTEMATIC CATALOG

This check-list contains the names of all species of Staphylinidae known to occur in the West Indies, arranged in the same order as in the descriptive section. The numbers after the generic names and before the specific names will aid in referring back to the descriptions, which are similarly numbered. Generic synonymy is omitted except where necessary to link the present names to ones previously in use. Specific synonymy is restricted to the separate specific names that have been proposed. Synonyms are printed in italics. The abbreviation "etc." is used to indicate that the species is known from parts of the world other than the West Indies and continental America. The word "to" between the names of two regions indicates that the species occurs in one or several of the intervening islands as well as on those actually mentioned. For detailed distribution (and synonymy) see the foregoing descriptive section.

PIESTINAE

Hypotelus Er. (I)
    1. insulanus Brg. -------- Cuba, Jamaica, St. Vincent
Piestus Grav. (II)
    1. sulcatus Grav. -------- Dominica to Trinidad, South America
    2. fulvipes Er. -------- Guadeloupe
    3. penicillatus (Dalm.) -------- Cuba to Trinidad
        striata (Gray)
        erythropus Er.
    4. pygmaeus Lap. -------- Guadeloupe to Trinidad, South America, Central America
        rufipennis (F. & S.)
    5. capricornis Lap. -------- Guadeloupe, South America
        muticus Fvl.

OMALIINAE

Phloeonomus Heer (III)
    1. pedicularius (Er.) -------- Cuba to Trinidad
        lacrymale (F. & S.)
Omalium Grav. (IV)
    1. jamaicensis Blkwr. -------- Jamaica
    2. darlingtoni Blkwr. -------- Jamaica
    3. cubanum Blkwr. -------- Cuba
    4. laborium Blkwr. -------- Hispaniola

OXYTELINAE

Carpelimus Sam. (V)
        Trogophloeus Mannh.
    1. croceipes (Fvl.) -------- Cuba to Guadeloupe
        arcuatus (Fvl.)

Carpelimus Sam. (V)—Continued.

2. fulvipes (Er.)	Cuba to Grenada, South America, Central America, etc.
rubripennis (Fvl.)	
senilis (Shp.)	
texanus (Csy.)	
aequalis (Gundl.)	
3. sericeus (Cam.)	Cuba, Jamaica, St. Croix
sextagonalis (Brg.)	
4. correctus Blkwr	Jamaica to Trinidad
5. darlingtoni Blkwr	Hispaniola
6. beattyi Blkwr	Hispaniola to St. Lucia
7. cornucopius Blkwr	Grenada
8. smithi (Bnhr.)	Cuba to Trinidad
smithi (Cam.)	
smithianus (Scheerp.)	
croceipes (Brg.)	
9. weberi Blkwr	Trinidad
10. hispaniolus Blkwr	Hispaniola
11. impunctus Blkwr	Jamaica
12. obsolescens Blkwr	Hispaniola
13. borinquensis Blkwr	Puerto Rico
14. danforthi Blkwr	Jamaica, Puerto Rico
15. cubensis (Brg.)	Cuba, Jamaica
16. imitator (Brg.)	Cuba to Guadeloupe
17. varicornis (Bnhr.)	Cuba to Trinidad
lactipennis (Cam.)	
18. aridus (DuVal)	Cuba to Trinidad
19. aeolus Blkwr	Jamaica
20. phaios Blkwr	Cuba, Jamaica
21. scrobiger (Cam.)	Jamaica to Grenada
22. petomus Blkwr	Jamaica to Antigua
23. flavipes (Er.)	Bahamas to Grenada, Central America
hiemalis (Brg.)	
flavibasis (Brg.)	
24. subtilior (Cam.)	Jamaica, Grenada
25. prolixus (Brg.)	Cuba
26. haplomus Blkwr	Cuba, St. Croix
27. tunapunae Blkwr	Trinidad
28. discipennis (Brg.)	Cuba, Jamaica
29. chapini Blkwr	Jamaica
30. rulomus Blkwr	Hispaniola
31. conformis Blkwr	Cuba
32. aequalis (DuVal)	Bermuda, Bahamas, Cuba, Jamaica
funestus (Cam.)	
amplicollis (Brg.)	
33. dissonus (Brg.)	Cuba
34. testaceipennis (Cam.)	Hispaniola
35. sordidus (Cam.)	Caymans
36. demmeli (Brg.)	Cuba
37. fulvipennis (Fvl.)	Cuba, Jamaica

Torrentomus Brg. (VI)
1. torrei Brg ---- Cuba
2. tenebrosus Blkwr ---- Jamaica

Apocellus Er. (VII)
1. ustulatus Er ---- St. John to Grenada
2. planus Shp ---- Trinidad, South America

Oxytelus Grav. (VIII)
1. insignitus Grav ---- Cuba to Trinidad, South America, Central America, North America, etc.
    - *americanus* Mannh.
    - *pumilio* Boh.
2. pluvius Blkwr ---- Trinidad
3. dentifrons Fvl ---- St. Vincent, South America
4. incisus Mots ---- Bermuda, Cuba to Trinidad, South America, Central America, etc.
    - *ferrugineus* Kr.
    - *laevior* Shp.
    - *bledioides* Blackb.
    - *laxipennis* Fairm.
5. eremus Blkwr ---- Puerto Rico
6. scorpio Fvl ---- Jamaica, Hispaniola, Puerto Rico
7. glareosus Woll ---- Jamaica to Grenada, etc
8. chapini Blkwr ---- Jamaica
9. jamaicensis Blkwr ---- Jamaica

Parosus Shp. (IX)
1. skalitzkyi Bnhr ---- St. Vincent, Grenada
2. antillarum Wend ---- Guadeloupe

Thinobius Kies. (X)
1. ornatus Cam ---- Cuba, Jamaica, Hispaniola
    - *tenebrophilus* Brg.
    - *flavifer* Brg.
2. opaculus Cam ---- Cuba, Jamaica, Hispaniola, Dominica
    - *morio* Brg.
    - *nebulosus* Brg.
    - *cubensis* Brg.
3. miricornis Cam ---- St. Vincent, Grenada
4. jamaicensis Blkwr ---- Jamaica
5. exasperatus Blkwr ---- Jamaica, Hispaniola, Montserrat
6. nitidulus Bnhr ---- Cuba, Jamaica, Puerto Rico
    - *piceus* Cam.

Platystethus Mannh. (XI)
1. spiculus Er ---- Cuba to Trinidad, South America, Central America
    - *exiguus* DuVal

Bledius Sam. (XII)
1. caribbeanus Blkwr ---- Hispaniola to Tobago
2. esposus Blkwr ---- Antigua
3. withycombei Bnhr ---- Trinidad
4. cubensis Blkwr ---- Cuba
5. trinidadensis Blkwr ---- Trinidad
6. jamaicensis Blkwr ---- Cuba, Jamaica
7. beattyi Blkwr ---- Vieques, St. Croix
8. ceratus Blkwr ---- Cuba, Hispaniola

OSORIINAE

Pseudolispinodes Bnhr. (XIII)
1. morugae Blkwr---------- Trinidad
2. reversus Blkwr---------- Hispaniola
3. impar (Cam.)---------- Cuba to Trinidad
    claviger (Cam.)
4. irregularis Blkwr---------- Cuba, Jamaica, Hispaniola
5. danforthi Blkwr---------- Puerto Rico, Guadeloupe
6. tenellus (Er.)---------- Cuba to Grenada, South America, Central America, North America
    fauveli (Shp.) 1887
    flavipennis (Fvl.)
    tenuis (LeC.)
7. foveolus Blkwr---------- Montserrat
8. nigrifrons (Fvl.)---------- Cuba to St. Lucia
    sparsepunctatus (Cam.)
9. guadeloupae Blkwr---------- Guadeloupe

Lispinus Er. (XIV)
1. laticollis Er---------- Cuba, Puerto Rico, Central America
2. aremicus Blkwr---------- Trinidad
3. catena Shp---------- Trinidad, South America, Central America
4. anguinus Fvl---------- Jamaica, Hispaniola
5. attenuatus Er---------- Puerto Rico, Guadeloupe, Trinidad
6. striola Er---------- Cuba, Trinidad, South America, Central America
7. insularis Fvl---------- Cuba to Grenada, Central America
    granadensis Fvl.
8. boxi Blkwr---------- St. Lucia

Inopeplus Smith. (XV)
1. wolcotti Blkwr---------- Hispaniola
2. mutchleri Blkwr---------- Guadeloupe
3. assistans Blkwr---------- St. Lucia
4. striatulus Blkwr---------- Guadeloupe

Glyptoma Er. (XVI)
    Calocerus Fvl.
1. trinidadensis Blkwr---------- Trinidad
2. guadelupensis (Wend.)---------- Guadeloupe

Espeson Schauf. (XVII)
1. crassulus Fvl---------- Montserrat to St. Vincent
2. euplectoides Fvl---------- Guadeloupe to Trinidad
3. moratus Schauf---------- Cuba to Trinidad
4. nitens Fvl---------- Guadeloupe, South America

Thoracophorus Mots. (XVIII)
1. simplex Wend---------- Puerto Rico to Grenada
2. rectangulus Blkwr---------- Trinidad
3. brevicristatus (Horn)---------- Cuba to Guadeloupe, Central America, North America
4. guadalupensis Cam---------- Cuba to Trinidad
5. exilis (Er.)---------- St. Thomas
6. dubitans Blkwr---------- Trinidad
7. denticollis (Er.)---------- Puerto Rico

Eleusis Lap. (XIX)
1. darlingtoni Blkwr---------- Cuba

Paralispinus Bnhr. (XX)
1. politus (Shp.) ----- Guadeloupe to St. Vincent, Central America
2. exiguus (Er.) ----- Cuba to Grenada, South America, Central America, North America, etc.
laevigatus (Kr.)
rufescens (LeC.)
rufus (Fvl.)
fauveli (Shp.) 1876
aruensis (Fvl.)
pallescens (Blackb.)
obscuripennis Bnhr.
3. rulomus Blkwr ----- Jamaica
4. crepusculus Blkwr ----- Cuba to Trinidad
5. punctatus Blkwr ----- Puerto Rico

Leptochirus Germ. (XXI)
1. maxillosus (Fab.) ----- Trinidad, South America, Central America
bicolor Lucas
bolivianus Heller
collaris Fvl.
anthracinus Fvl.

Neotrochus Blkwr. (XXII)
1. minor (Fvl) ----- Cuba, Jamaica, Grenada, Trinidad, South America
2. trinitatis Blkwr ----- Trinidad
3. cylindrus (Er.) ----- Puerto Rico, Grenada, Trinidad
4. smithi (Cam.) ----- St. Vincent, Trinidad

Holotrochus Er. (XXIII)
1. poundi Blkwr ----- Trinidad
2. volvulus Er ----- Puerto Rico

Mimogonus Fvl. (XXIV)
1. fumator (Fvl.) ----- Cuba to Guadeloupe, Central America, etc.
fauveli (Cam.)

Osorius Latr. (XXV)
1. regulus Darl ----- Hispaniola
2. darlingtoni Blkwr ----- Cuba
3. crenulifrons Notm ----- Cuba
4. fratellus Darl ----- Hispaniola
5. salutator Darl ----- Hispaniola
6. hirtilabris Darl ----- Hispaniola
7. daemon Darl ----- Hispaniola
8. cubensis Blkwr ----- Cuba
9. strictus Blkwr ----- Cuba
10. socors Darl ----- Cuba
11. manni Notm ----- Cuba
12. cautis Darl ----- Hispaniola
13. mediocris Darl ----- Hispaniola
14. biarmatus Darl ----- Hispaniola
15. buscki Notm ----- Hispaniola
16. oriente Blkwr ----- Cuba
17. turquinus Blkwr ----- Cuba
18. latipes (Grav.) ----- Cuba, North America
19. minor Notm ----- St. Vincent, Grenada, Trinidad
20. schwarzi Notm ----- Cuba
21. haitiellus Darl ----- Hispaniola
22. intermedius Er ----- Trinidad, South America

Osorius Latr. (XXV)—Continued.

23. hubbardi Notm	Jamaica
24. notmani Darl	Jamaica
25. laeviceps Notm	Puerto Rico
26. jamaicensis Blkwr	Jamaica
27. eggersi Bnhr	Cuba to St. Thomas, Central America
28. lewisi Blkwr	Caymans
29. weberi Blkwr	Trinidad
30. trinitatis Blkwr	Trinidad
31. exiguus Notm	Cuba
micros Notm.	
32. exalatus Blkwr	Trinidad
33. micropterus Blkwr	Trinidad

STYLOPODINAE

Stylopodus Benick (XXVI)

1. smithi (Cam.)	St. Vincent
2. impressus (Shp.)	Trinidad, South America, Central America
3. humeralis (Cam.)	St. Vincent
4. laeviventris (Cam.)	St. Vincent, Grenada
5. punctatus (Er.)	Trinidad, Curaçao, South America, Central America
6. rambouseki (Brg.)	Cuba
bierigi (Brg.)	

STENINAE

Stenus Latr. (XXVII)

1. trinitatis Blkwr	Trinidad
2. chapini Blkwr	Jamaica
3. rulomus Blkwr	Bahamas
4. odius Blkwr	Cuba
5. bakeri Bnhr	Cuba
6. jamaicensis Blkwr	Jamaica
7. jugalis Er	St. Vincent, South America
8. augustinus Blkwr	Trinidad
9. haitiensis Blkwr	Hispaniola
10. mutchleri Blkwr	Cuba
11. morrisoni Blkwr	Trinidad
12. bryanti Blkwr	Trinidad
13. dyeri Blkwr	Cuba
14. cubanus Blkwr	Cuba
15. adamsoni Blkwr	Trinidad
16. darlingtoni Blkwr	Trinidad
17. lucens Cam	Grenada
18. hispaniolus Blkwr	Cuba, Hispaniola
19. cubensis Bnhr	Cuba
20. antillensis Ben	Guadeloupe

EUAESTHETINAE

Exoctavius Brg. (XXVIII)

1. bermudezi Brg	Cuba

Tamotus Schauf. (XXIX)

1. femoratus Schauf	Cuba

Stenaesthetus Shp. (XXX)

1. immarginatus (Er.)	St. Vincent, South America

PAEDERINAE

Thinocharis Kr. (XXXI)
1. poundi Blkwr ---- Trinidad
2. bakeri (Csy.) ---- Cuba
3. chapini Blkwr ---- Jamaica, Hispaniola
4. fuscina Cam ---- Grenada, Trinidad
5. smithi Cam ---- St. Vincent, Grenada
6. exilis (Er.) ---- Cuba to Trinidad, South America, Central America, North America
   atratula (Lynch)
   fragilis (Shp.)
   minuta (Shp.)
   delicatula (Csy.)
   pertenuis (Csy.)

Lithocharis B. & L. (XXXII)
1. sororcula Kr ---- Jamaica to Grenada, etc.
2. ochracea (Grav.) ---- Jamaica to Grenada, South America, Central America, North America, etc.
   rubricollis (Grav.)
   obscurus (Steph.)
   brunniceps (Fairm.)
   fastidiosa F. & G.
   alutacea (Csy.)
   quadricollis (Csy.)
3. secunda Blkwr ---- Jamaica to St. Lucia
4. volans Blkwr ---- Jamaica
5. mendacia Cam ---- Jamaica
6. limbata Er ---- Hispaniola to Trinidad, South America, Central America
7. dorsalis Er ---- Cuba to Trinidad
   obfuscata Cam.
8. posticata Er ---- Puerto Rico
9. heres Blkwr ---- Cuba

Aderocharis Shp. (XXXIII)
1. cubensis Blkwr ---- Cuba
2. dubitans Blkwr ---- Trinidad
3. conifer Cam ---- St. Vincent, Grenada
   obscurior Cam.
4. suturalis Blkwr ---- Cuba to Puerto Rico

Stilomedon Shp. (XXXIV)
1. insularum (Cam.) ---- Cuba, Jamaica, Hispaniola
2. connexum (Shp.) ---- Cuba to Trinidad, South America, Central America
3. audanti Blkwr ---- Cuba to St. Croix

Sunius Steph. (XXXV)
   Hypomedon sensu Blkwr., 1939
1. oakleyi Blkwr ---- Puerto Rico
2. ferrugineus (Brg.) ---- Cuba
3. occipitalis (Brg.) ---- Cuba
4. darlingtoni Blkwr ---- Hispaniola
5. oblitus (Er.) ---- St. Lucia to Grenada, South America
6. curtulus (Er.) ---- Grenada, Trinidad, South America

Sunius Steph. (XXXV)—Continued.

7. weberi Blkwr — Trinidad
8. debilicornis (Woll.) — Cuba to Trinidad, South America, Central America, North America, etc.
    - *brevicornis* (Allard)
    - *aegyptiacus* (Mots.)
    - *pallidus* (Mots.)
    - *occultus* (Wat.)
    - *rufulus* (Lynch)
    - *pallidus* (Fiori)
9. terresi Blkwr — Hispaniola

Medon Steph. (XXXVI)

1. johni Blkwr — Dominica, St. Lucia
2. matasana Blkwr — Hispaniola
3. dominicanum Blkwr — Hispaniola
4. trinitatum Blkwr — Trinidad
5. cubanum Blkwr — Cuba
6. schwarzi Blkwr — Cuba
    - *caribaeus* Brg. MS.
7. cordatum Blkwr — Cuba

Orus Csy. (XXXVII)

1. volans Blkwr — Jamaica
2. cameroni Blkwr — Cuba, Jamaica, Hispaniola, Grenada

Scopaeus Er. (XXXVIII)

1. dominicanus Blkwr — Hispaniola
2. rivularis Blkwr — Jamaica
3. potamus Blkwr — St. Lucia
4. fasciatellus Er — Puerto Rico
5. rulomus Blkwr — Jamaica
6. antennalis Cam — Cuba to St. Lucia
    - *antennatus* Scheerp.
    - *bicoloricornis* Brg., MS.
7. marginatus Cam — Cuba, Jamaica
8. pygmaeus Er — St. Lucia to Grenada
    - *simplicicollis* Cam.
9. filum Shp — Cuba, Jamaica, Hispaniola, Central America
10. cupiens Blkwr — Jamaica
11. angusticollis Cam — Cuba, Grenada
12. arena Blkwr — St. Lucia
13. darlingtoni Blkwr — Cuba
14. auripilis Cam — St. Vincent, Grenada
15. rambouseki (Brg.) — Cuba
16. boxi Blkwr — St. Lucia
17. pulchellus Er — Grenada, Trinidad, South America, Central America
    - *apicipennis* Shp.
18. chapini Blkwr — Jamaica

Monista Shp. (XXXIX)

1. personata Cam — Grenada
2. trinitatis Blkwr — Trinidad
3. darlingtoni Blkwr — Trinidad
4. vola Blkwr — Dominica

Rugilus Sam. (XL)	
Stilicus Lepel.	
1. buscki Blkwr	Trinidad
2. jucundus (Cam.)	St. Vincent, Grenada
3. agnatus (Cam.)	Grenada
4. cupreus (Cam.)	Jamaica
5. chthonus Blkwr	Hispaniola, Puerto Rico
6. insularis (Cam.)	Jamaica
7. coprophilus (Brg.)	Cuba, Isle of Pines
Scopobium Blkwr. (XLI)	
1. anthracinum (Cam.)	St. Lucia to Grenada
Lathrobium Grav. (XLII)	
1. trinitatum Blkwr	Trinidad
2. canoaense (Brg.)	Cuba, North America
3. dominicanum Blkwr	Hispaniola
4. subterraneum Blkwr	Puerto Rico
Lobrathium M. & R. (XLIII)	
1. discolor (Er.)	Cuba to St. Thomas
2. pectorale (Er.)	St. Thomas
3. rubidum (Fvl.)	Cuba, Jamaica, Hispaniola
4. nitidum (Er.)	Cuba to St. Lucia
5. margipallens (DuVal)	Cuba, Jamaica
insulare (Cam.)	
6. darlingtoni Blkwr	Trinidad
7. odium Blkwr	Cuba
8. reductum Blkwr	Hispaniola
9. borinquense Blkwr	Puerto Rico
10. pluviosum Blkwr	Hispaniola
Paederus Fabr. (XLIV)	
1. mutans Shp	Trinidad, South America
2. homonymus Blkwr	Martinique, St. Vincent
tricolor Er.	
thoracicus Marshall	
3. jamaicensis Blkwr	Jamaica
4. morio Mannh	Hispaniola
Homoeotarsus Hochh. (XLV)	
1. solus Blkwr	Cuba, Jamaica, Hispaniola
2. albipes (Er.)	Cuba to Grenada, South America, Central America
marginellus (Bnhr.)	
3. obsolescens Blkwr	Tobago, Trinidad
4. testaceipes (Brg.)	Cuba, Hispaniola
congener (Brg.)	
Ochthephilum Steph. (XLVI)	
Cryptobium Mannh.	
1. atlanticum (Brg.)	Cuba
2. trinitatum Blkwr.	Trinidad
3. darlingtoni Blkwr	Cuba
4. trinidadense (Bnhr.)	Trinidad
Biocrypta Csy. (XLVII)	
1. darlingtoni Blkwr	Trinidad
2. fulvipes (Er)	Puerto Rico to Grenada, South America
3. trinitatis Blkwr	Trinidad

Biocrypta Csy. (XLVII)—Continued.	
4. dominicana Blkwr	Hispaniola
5. haitia Blkwr	Hispaniola
6. cubensis Blkwr	Cuba
7. densa Blkwr	Hispaniola
8. jamaicensis Blkwr	Jamaica
9. hispaniola Blkwr	Hispaniola
Ophites Er. (XLVIII)	
1. bugnioni Fvl	Trinidad
Suniophacis Blkwr. (XLIX)	
1. concolor Blkwr	Jamaica
2. thoracicus (Cam.)	Cuba, Hispaniola
antillana Brg., MS.	
3. hubbardi Blkwr	Jamaica, Antigua
Stilosaurus Blkwr. (L)	
1. rulomus Blkwr	Hispaniola
2. lineatus Blkwr	Puerto Rico
3. coronalis Blkwr	Cuba
Stamnoderus Shp. (LI)	
1. varians Cam	St. Vincent, Grenada
2. labeo (Er.)	Cuba to Dominica
delauneyi F. & S.	
apicalis Cam.	
incarenatus Brg.	
caribaeus Brg.	
truncatus Brg.	
3. bernhaueri Cam	Jamaica
dissimilis Cam.	
4. cameroni Blkwr	Hispaniola
Stiliphacis Brg. (LII)	
1. exigua (Er.)	Puerto Rico to Trinidad
circumflexus (Cam.)	
auripilis (Cam.)	
2. trinitatis Blkwr	Trinidad
3. dentata Blkwr	St. Vincent, Grenada
4. occipitalis Brg	Cuba
truncata Brg., MS.	
5. darlingtoni Blkwr	Jamaica
Suniosaurus Brg. (LIII)	
1. cuadriceps Brg	Cuba
Suniocharis Shp. (LIV)	
1. volans Blkwr	Trinidad
Ronetus Blkwr. (LV)	
1. ortinolus Blkwr	Trinidad
Astenus Steph. (LVI)	
1. cinctiventris (Shp.)	Hispaniola to Grenada, Central America
2. cubensis Blkwr	Cuba, Jamaica
3. juvus Blkwr	Trinidad
Echiaster Er. (LVII)	
1. microps Blkwr	Cuba, Montserrat
2. distinctus Cam	Jamaica
3. waterhousei Cam	Cuba to Grenada

Echiaster Er. (LVII)—Continued.	
4. sharpi Cam	Jamaica
5. buphthalmus Cam	Antigua to Trinidad
6. impressicollis Cam	Grenada
Sphaeronum Shp. (LVIII)	
1. berberum Blkwr	Cuba
Pinophilus Grav. (LIX)	
1. vermiformis Cam	Mustique
2. danforthi Blkwr	Hispaniola, Puerto Rico
3. cubanus Blkwr	Cuba
4. trinitatis Blkwr	Trinidad
5. subterraneus Blkwr	Cuba
6. darlingtoni Blkwr	Jamaica
7. jamaicensis Blkwr	Jamaica
8. bierigi Blkwr	Puerto Rico
9. flavipes Er	Bahamas, Cuba to Puerto Rico
10. hispaniolus Blkwr	Hispaniola
11. aguayoi Brg	Cuba
12. insigniventris Bnhr	Guadeloupe
13. schwarzi Blkwr	Cuba
Araeocerus Nord. (LX)	
1. parvipennis Brg	Cuba
Palaminus Er. (LXI)	
1. anacoreta Brg	Cuba
2. apterus Bnhr	Guadeloupe
3. bermudezi Brg	Cuba
4. bifidus Notm	Puerto Rico
5. bruchianus Brg	Cuba
6. coriaceus Cam	Cuba, Jamaica, Hispaniola
7. dubius Notm	Guadeloupe
8. grandicollis Notm	Puerto Rico
9. hylaeus Brg	Cuba
10. insularis Cam	Jamaica, Puerto Rico, Guadeloupe
11. lengi Notm	Puerto Rico
12. parvipennis Notm	Puerto Rico
13. peralutaceus Brg	Cuba
14. pilum Brg	Cuba
15. procerus Notm	Puerto Rico
16. pusillus Notm	Puerto Rico
17. rosariensis Brg	Cuba
18. scitulus Notm	Puerto Rico
19. variabilis Er	Jamaica to Trinidad, South America

STAPHYLININAE

Paederomimus Shp. (LXII)	
1. tetricus Blkwr	Trinidad
2. cribricollis (Er.)	Grenada, Trinidad, South America, Central America
trinidadensis Bnhr.	
3. interjectus Bnhr	St. Vincent
smithi Cam.	
4. lustralis (Er)	Puerto Rico, St. Thomas
insularis Bnhr.	

Philonthus Steph. (LXIII)

1. hepaticus Er.......................... Bahamas, Cuba to Trinidad, South America, Central America, North America, etc.
    - *vilis* Er.
    - *orphanus* Er.
    - *nanus* Melsh.
    - *cinctutus* Melsh.
    - *palleolus* Melsh.
    - *rufipennis* (Sol.)
    - *varicolor* Boh.
    - *pyropterus* Kr.
    - *pauxillus* Sols.
    - *parvimanus* Shp.
2. thermarum Aubé.......................... Jamaica to Grenada, South America, North America, etc.
    - *exilis* Kr.
    - *angustatus* Kr.
    - *pygmaeus* Kr.
    - *fuscolaterus* (Mots.)
    - *inclinans* (Walk.)
3. ventralis (Grav.).......................... Cuba to Trinidad South America, North America, etc.
    - *anthrax* (Grav.)
    - *immundus* (Grav.)
    - *celer* (Grav.)
    - *picicollis* Steph.
    - *fulvipes* (Steph.)
    - *rotundiceps* (Steph.)
    - *fortunatus* Woll.
    - *proximus* Woll.
4. audanti Blkwr.......................... Hispaniola
5. discoideus (Grav.).......... Cuba to Grenada, North America, etc.
    - *suturalis* (Marsh.)
    - *testaceus* (Grav.)
    - *lepidulus* (Steph.)
    - *conformis* (B. & L.)
    - *ruficornis* Melsh.
    - *rufipennis* Gerh.
    - *gerhardtianus* Scheerp.
6. figulus Er........ Cuba to Trinidad, South America, Central America
    - *amazonicus* Shp.
7. longicornis Steph.......................... Hispaniola to Grenada, South America, Central America, North America, etc.
    - *scybalarius* Nordm.
    - *fuscicornis* Nordm.
    - *feralis* Er.
    - *promtus* Er.
    - *varians* Fairm.
    - *algiricus* Mots.
    - *pedestris* Walk.
    - *asemus* Kr.
    - *perplexus* F. & G.
    - *fumosus* Sols.

Philonthus Steph. (LXIII)—Continued.
7. longicornis Steph.—Continued.
laetabilis (Olliff)
linkei Bnhr.
rubromaculatus Bnhr.
piceicornis Grid.
8. varians (Payk.) ---- Cuba, St. John, St. Vincent, North America, etc.
bipustulatus (Grav.)
aterrimus (Marsh.)
nitens (Grav.)
opacus (Grav.)
intaminatus (Steph.)
lituratus Steph.
nigrans (Dej.)
punctiventris Steph.
unicolor (Steph.)
bimaculatus (Marsh.)
costatus Baudi
incompletus (Hochh.)
scutatus Epp.
alpigradus M. & R.
proteus Everts
piceicoxis Grid.
fuscicoxis Scheerp.
9. flavolimbatus Er ------ Martinique, Carriacou, South America, Central America, North America
apicipennis Lynch
10. caribaeus Brg ---------- Cuba
11. silvaticus Cam ---------- Jamaica
12. waterhousei Cam ---------- St. Vincent, Grenada
13. trinitatis Blkwr ---------- Trinidad
14. havaniensis (Lap.) ---------- Cuba to Antigua
trepidus Er.
obscurus Fvl.
cubensis Brg. MS.

Belonuchus Nordm. (LXIV)
1. hispaniolus Blkwr ---------- Hispaniola
2. oakleyi Blkwr ---------- Puerto Rico
3. trinitatis Blkwr ---------- Trinidad
4. gagates Er ---------- Bahamas, Cuba to Montserrat
minax Er.
nigrocaeruleus (Cam.)
gowdeyi Bnhr.
5. amplus Blkwr ---------- St. Lucia
6. coelestinus Bnhr ---------- St. Vincent
coeruleus Cam.
smithi Cam.
7. cognatus Shp ---------- St. Vincent, Trinidad, South America, Central America
8. agilis Er ---------- Cuba, Jamaica
chevrolati Fvl.
9. bugnioni Fvl ---------- Guadeloupe, Martinique
eximius Bnhr.

Belonuchus Nordm. (LXIV)—Continued.
10. danforthi Blkwr — Puerto Rico
11. mundus Er — St. Lucia to Grenada
12. satyrus Er — Trinidad, South America
13. dominicus Blkwr — Dominica
14. rufipennis (Fabr.) — Tobago, Trinidad, South America, Central America, North America
    formosus Grav.
    apicalis Dej.
    pallipes Melsh.
15. cacao Blkwr — Trinidad
16. antiguae Blkwr — Antigua

Cafius Steph. (LXV)
1. subtilis Cam — Cuba to Dominica
2. caribeanus Brg — Cuba to Grenada
3. bistriatus (Er.) — Bahamas, Cuba to Trinidad, South America, North America
    bilineatus (Er.)
    rufifrons Brg.

Erichsonius Fvl. (LXVI)
1. humilis (Er.) — Cuba to Grenada
    margipallens (B. & S.)
    limbatus (Cam.)
    nigrocoeruleus (Cam.)
    funerulus (Cam.)
    carbonarius (Brg.)
    demmeli (Brg.)

Staphylinus L. (LXVII)
1. antiquus Nordm — Cuba, Trinidad, South America, Central America
    cubae (DuVal)

Creophilus Sam. (LXVIII)
1. maxillosus (L.) — Cuba, Isle of Pines, Jamaica, Central America, North America, etc.
    anonymus (Sulz.)
    tertius (Schaeff.)
    balteatus (DeG.)
    fasciatus (Fuess.)
    nebulosus (Fourc.)
    villosus (Grav.)
    ciliaris Steph.
    fasciatus Lap.
    arcticus (Er.)
    cinerarius (Er.)
    bicinctus Mannh.
    orientalis (Mots.)
    fulvago Mots.
    imbecillus Shp.
    medialis Shp.
    subfasciatus Shp.
    pulchellus Meier
    canariensis Bnhr.
    ciliaroides Hatch

Xanthopygus Kr. (LXIX)	
1. pexus (Mots.)	St. Vincent, Trinidad
Philothalpus Kr. (LXX)	
1. fasciatus (Nord.)	Trinidad, South America, Central America
anceps (Er.)	
segmentarius (Er.)	
luteipes Shp.	
2. analis (Er.)	Trinidad, South America, Central America
Diochus Er. (LXXI)	
1. nanus Er	Cuba to Trinidad, South America, Central America, North America
schaumi Kr.	
parvulus Kr.	
longicornis Shp.	
vicinus Shp.	
tarsalis Shp.	
flavicans Shp.	
inornatus Shp.	
vilis Shp.	
maculicollis Fvl.	
brevipennis Csy.	
thoracicus Csy.	
pallidiceps Csy.	
conicicollis (Eichelb.)	
perplexus Cam.	
apicipennis Cam.	
antennalis Cam.	
pumilio Bnhr.	
Cephaloxynum Bnhr. (LXXII)	
1. chapini Blkwr	Jamaica
2. rambouseki Brg	Cuba
Holisus Er. (LXXIII)	
1. debilis Er	Bahamas, Cuba to St. Vincent
rufoniger Cam.	
erythroderus Cam.	
cubensis (Csy.)	
2. guildingii Er	Puerto Rico to St. Vincent
3. laevis Blkwr	Cuba, Jamaica
Heterothops Steph. (LXXIV)	
1. rambouseki Blkwr	Cuba, Jamaica
liliputanus Ramb., MS.	
2. ocularis Blkwr	Trinidad
Acylophorus Nordm. (LXXV)	
1. trinitatis Blkwr	Trinidad
2. insulanus Brg	Cuba, Isle of Pines
3. aenescens Blkwr	Hispaniola
4. hatuey Brg	Cuba
5. metallicus Blkwr	Hispaniola
6. darlingtoni Blkwr	Trinidad
thaxteri Bnhr., MS.	
Atanygnathus Jacobs. (LXXVI)	
1. heterocerus Cam	St. Vincent, Grenada
2. laticollis (Er.)	Cuba to Trinidad

Xantholinus Dej. (LXXVII)

1. oakleyi Blkwr ---- Hispaniola, Puerto Rico
2. insulatus Cam ---- Mustique, Grenada
3. fuscipennis Cam ---- Jamaica
4. attenuatus Er ---- Cuba to Trinidad, South America, Central America
5. humeralis Er ---- Cuba to St. Vincent
   - *puncticeps* DuVal
   - *punctiger* G. & H.
6. cubensis Blkwr ---- Cuba
7. darlingtoni Blkwr ---- Hispaniola
8. rulomus Blkwr ---- Hispaniola
9. audanti Blkwr ---- Hispaniola
10. morrisoni Blkwr ---- Trinidad
11. haitius Blkwr ---- Hispaniola
12. beattyi Blkwr ---- Cuba, Hispanola, St. Croix
13. solitarius Blkwr ---- Guadeloupe
14. jamaicensis Blkwr ---- Jamaica
15. impunctus Blkwr ---- Cuba
16. illucens Er ---- Puerto Rico to Trinidad, South America
17. hydrocephalus Fvl ---- Trinidad, South America

Thyreocephalus Guer. (LXXVIII)

1. subtilis Shp ---- St. Vincent, South America, Central America

Plochionocerus Shp. (LXXIX)

1. brachypterus Shp ---- Trinidad, Central America

Leptacinus Er. (LXXX)

1. eggersi B. & S ---- St. Thomas
   - *apicipennis* Bnhr.
2. parumpunctatus (Gyll.) ---- Cuba to Grenada, North America, etc.
   - *longicollis* (Steph.)
   - *ampliventris* DuVal
   - *subimpressus* (Dej.)
   - *radiosus* (Peyr.)
   - *pallidipennis* Mots.
   - *tricolor* Kr.
   - *flavipennis* Kr.
   - *amissus* (F. & C.)
   - *breviceps* Waterh.
   - *papuensis* Fvl.
   - *sardous* Fiori
   - *rubricollis* Reitt.
   - *fauveli* Cam.

Lithocharodes Shp. (LXXXI)

1. claviscapa (Cam.) ---- Grenada, St. Vincent
   - *claviger* Cam., MS.
2. cameroni Blkwr ---- Cuba
3. strigulata Blkwr ---- Hispaniola
4. cavicola Blkwr ---- Trinidad
5. rambouseki Blkwr. (Brg., MS.) ---- Cuba
6. trinitatis Blkwr ---- Trinidad
7. unicolor (Cam.) ---- Jamaica

Microlinus Csy. (LXXXII)

1. pusio (LeC.) ---- Jamaica, Trinidad, North America

Stenolinus Brg. (LXXXIII)

1. macrothrichus Brg ---- Cuba

Oligoninus Csy. (LXXXIV)
1. hubbardi Blkwr.---------- Montserrat
2. darlingtoni Blkwr.---------- Hispaniola
3. filarius (Er.)---------- St. Vincent, South America, Central America
4. testaceipennis (Fvl.)---------- Cuba
    pallidipennis (Fvl.)
5. variabilis Blkwr.---------- Cuba, Hispaniola

TACHYPORINAE

Leucoparyphus Kr. (LXXXV)
1. silphoides (L.)---------- Puerto Rico to Trinidad, North America, etc.
    suturalis (Panz.)
    marginalis (Grav.)
    limbatus (Grav.)
    pictus (Er.)
    geminatus (Rand.)
    marginicollis Kr.
    limbifer Mots.
    koreanus Bnhr.

Coproporus Kr. (LXXXVI)
1. sharpi Cam.---------- Antigua to St. Vincent
2. apicalis (Er.)---------- Cuba to Puerto Rico
3. hepaticus (Er.)---------- Cuba, Puerto Rico, Trinidad, South America, Central America, North America
    convexus (Er.)
    ignavus Shp.
    inflatus (Horn)
4. trinitatis Blkwr.---------- Trinidad
5. weberi Blkwr.---------- Trinidad
6. cacao Blkwr.---------- St. Lucia, Trinidad
7. flavicollis Scriba---------- Cuba, Jamaica, Puerto Rico, South America, Central America
    nitidulus (Er.)
    strigosus (Shp.)
8. ebonus Blkwr.---------- Jamaica to Grenada
    piceus (Er.)
9. pulchellus (Er.)---------- Cuba to Trinidad, South America, Central America, North America
    cumanensis Scriba
    infimus (DuVal)
    distans Shp.
10. rutilus (Er.)---------- Cuba to Trinidad, South America, Central America, North America
    terminalis (Er.)
    brevis (Scriba)
    obscurior Bnhr.
    piceorufus Bnhr.
11. buscki Blkwr.---------- Trinidad

Conosomus Mots. LXXXVII)
    Conosoma Kr.
1. interruptus (Er.)---------- Jamaica to Trinidad, South America
    vitraci (Bnhr.)
    caribeanus (Brg.)
    cubanus (Brg.)
    conformis (Brg.)

Bryoporus Kr. (LXXXVIII)
1. regulus Blkwr ---- Hispaniola
2. similis Blkwr ---- Trinidad
3. bicolor Blkwr ---- Hispaniola
4. obscurus (Er.) ---- Puerto Rico, Grenada
5. aciculatus Blkwr ---- Cuba
6. cubanus Blkwr ---- Cuba
7. subterraneus Blkwr ---- Jamaica

HYPOCYPHTINAE

Anacyptus Horn (LXXXIX)
1. testaceus (LeC.) ---- Cuba, Montserrat, North America

ALEOCHARINAE

Deinopsis Matth.
1. gracilis Cam ---- St. Lucia

Myllaena Er.
1. celerrima Cam ---- St. Vincent, Grenada
2. curticornis Cam ---- Grenada
3. difficilis Cam ---- Jamaica
4. diversicornis Cam ---- St. Vincent, Grenada
5. fragilis Shp ---- St. Lucia, Central America
6. granulata Cam ---- Jamaica
7. indefatigabilis Cam ---- St. Lucia
8. obscura Cam ---- Hispaniola

Pronomaea Er.
1. debilis Cam ---- Tortola

Oligota Mannh.
1. albidicornis Bnhr ---- Guadeloupe
2. cadaverina Brg ---- Cuba
3. centralis Shp ---- Cuba, Central America
4. chrysopyga Kr ---- Grenada, etc.
    ventralis Fvl.
5. hypocyptina Bnhr ---- Guadeloupe
6. laxata Cam ---- Jamaica, Grenada
7. luteicornis Brg ---- Cuba
8. maculicornis Cam ---- Cuba, Hispaniola
9. minuta Cam ---- Grenada, Trinidad
10. minutissima Bnhr ---- Guadeloupe
11. parva Kr ---- Jamaica, Tortola, St. Vincent, Grenada, South America, Central America, North America, etc.
    pygmaea Kr.
    contempta Woll.
    aliena M. & R.
    californica Csy.
    congruens Csy.
    esmeraldae Csy.
12. rhopalocera Bnhr ---- Cuba, St. Thomas
13. rufa Cam ---- Jamaica, St. Lucia
14. smithi Cam ---- Grenada
15. testaceorufa Bnhr ---- St. Thomas
16. tricolor Brg ---- Cuba
17. zonata Brg ---- Cuba
18. Sp. indet ---- Hispaniola, Tortola

Thyreoxenus Mann	
1. parviceps Mann	Trinidad, South America
2. Sp. indet	Trinidad
Eburniola Mann	
1. leucogaster Mann	Trinidad, South America
Thaxteria Fenyes	
1. insularis Fenyes	Grenada
Perinthus Csy.	
1. xenocostalis Seev	Trinidad, South America
2. dudleyanus Csy	Trinidad, South America, Central America
Barychara Shp.	
1. flavipennis Cam	Hispaniola
Gnypetosoma Cam.	
1. calocera Cam	St. Vincent
2. farrea Cam	St. Vincent
Alisalia Csy.	
1. brunnea Cam	Hispaniola
2. picea Cam	Hispaniola
Brachychara Shp.	
1. aterrima Cam	St. Vincent
Gyrophaena Mannh.	
1. aeneicollis Cam	St. Vincent, Grenada
2. atomaria Cam	Hispaniola, St. Vincent, Grenada
3. boops Shp	Trinidad, South America
4. connexa Cam	Grenada
5. cornuta (Csy.)	Cuba
6. cubensis (Csy.)	Cuba
7. densata Cam	St. Vincent
8. fauveli Cam	St. Vincent
flavicornis Cam.	
9. granifera Cam	Jamaica
10. hydrocephala Cam	St. Vincent, Grenada
11. jamaicensis Cam	Jamacia
12. laxata Cam	St. Vincent, Grenada
13. oblita Shp	St. Lucia, Central America
14. obscuripes Cam	Jamaica
15. persimilis Cam	St. Vincent
16. piceicollis Cam	St. Vincent, Grenada
17. puncta Cam	Hispaniola
18. quassa Shp	Grenada, South America
19. rufula Cam	St. Vincent, Grenada
20. smithi Cam	St. Vincent, Grenada
21. sparsepunctata Cam	Jamaica
22. splendidula Er	St. Thomas, South America
Diestota M. & R.	
1. capitalis B. & S	St. Vincent, Grenada
puncticeps Cam.	
2. sperata Shp	Cuba to Grenada, South America, Central America
3. laticornis Shp	St. Vincent, Mustique, Grenada, Central America
Coenonica Kr.	
1. puncticollis Kr	St. Vincent, Grenada, etc.
indica Mots.	
cribriceps Shp.	

Placusa Er.
   1. analis Cam ---- St. Vincent
   2. heterogaster Cam ---- St. Vincent
   3. cameroni B. & S ---- St. Vincent
      insularis Cam.
   4. luctuosa Cam ---- St. Vincent

Silusa Er.
   1. diversicollis Cam ---- St. Vincent, Grenada
   2. tenella Cam ---- St. Vincent

Thecturella Cam.
   1. insidiosa Cam ---- St. Vincent, Grenada

Bolitochara Mannh.
   1. cinctigastra Brg ---- Cuba

Xenobiota Brg.
   1. bernhaueri Brg ---- Cuba

Euvira Shp.
   1. cubana Brg ---- Cuba
   2. flavipes Brg ---- Cuba
   3. insularis Cam ---- St. Vincent

Falagria Sam.
   1. basiventris (Cam.) ---- Jamaica
   2. cephalotes Cam ---- Grenada
   3. concinna Er ---- St. Vincent, Grenada, South America, Central America, etc.
      parae Shp.
      fovea Shp.
      longipes Woll.
      currax Shp.
   4. infima Shp ---- Jamaica to Grenada, Central America

Meronera Shp.
   1. albicincta (Er.) ---- Cuba, Jamaica, Grenada, South America Central America

Neolara Shp.
   1. alboguttata (Er.) ---- Grenada, South America
   2. cubana Csy ---- Cuba

Pseudognypeta Cam.
   1. picta Cam ---- Jamaica

Gnypeta Thoms.
   1. basalis Cam ---- Jamaica, St. Lucia
   2. basiventris Cam ---- Grenada
   3. fragilis Shp ---- Jamaica, Central America
   4. sanctae-luciae Cam ---- St. Lucia

Atheta Thoms.
   1. accedens Cam ---- Mustique, Grenada
   2. albipennis Cam ---- Mustique, Grenada
   3. alternata (Er.) ---- Hispaniola to Grenada
   4. anomala Cam ---- Jamaica, Hispaniola
   5. antillarum Cam ---- Mustique
   6. cacophila Cam ---- St. Vincent, Mustique, Grenada
      discrepans Cam.
   7. cingulifera Shp ---- St. Vincent, Grenada, Central America, North America
   8. cognata Shp ---- Hispaniola, St. Vincent, Central America
   9. combusta Cam ---- St. Vincent

Atheta Thoms—Continued.
  10. conformis (Er.) ------ Jamaica, St. Lucia to Grenada, South America
  11. cristofera Cam. ------ Jamaica
  12. croceicornis Cam. ------ St. Vincent, Grenada
  13. decipula (Er.) ------ Puerto Rico
  14. dentella Cam. ------ St. Vincent
  15. dichroa (Grav.) ------ St. Vincent to Grenada, South America, North America
    propinqua (Er.)
  16. fatuosa Cam. ------ Jamaica
  17. flavipennis (Er.) ------ St. John
  18. flavoterminata Cam. ------ Jamaica
  19. flotata Cam. ------ Jamaica
  20. guadalupensis Cam. ------ St. Vincent, Mustique, Grenada
  21. guatemalae B. & S. ------ Caymans, Jamaica, Tortola, Grenada, Central America
    pumila Shp.
  22. impavida Cam. ------ Grenada
  23. insularum Cam. ------ St. Vincent, Grenada
  24. jamaicensis Cam. ------ Jamaica
  25. melanura (Er.) ------ Puerto Rico, St. John
  26. nigripennis (Er.) ------ St. John, St. Vincent, Grenada
  27. plurispinosa Cam. ------ Jamaica, Hispaniola
  28. reducta Cam. ------ St. Vincent
  29. sordidula (Er.) ------ Cuba, North America, etc.
  30. stagnicola Cam. ------ Grenada
  31. subcombusta Cam. ------ Jamaica
  32. suboblita Cam. ------ Hispaniola
  33. tentativa Cam. ------ Jamaica, Hispaniola

Aleuonota Thoms.
  1. carinella Cam. ------ St. Vincent

Guajira Brg.
  1. cubana Brg. ------ Cuba

Mimacrotona Cam.
  1. cingulata Cam. ------ St. Vincent, Grenada, etc.

Pseudothamiaraea Cam.
  1. brunnea Cam. ------ Hispaniola

Zyras Steph.
  1. clavata Cam. ------ Grenada
  2. distinctus Brg. ------ Cuba
  3. munda (Er.) ------ St. Thomas, Grenada
  4. rhopalomera Cam. ------ Grenada
  5. smithi Cam. ------ Grenada
    rufiventris Cam.
  6. waterhousei Cam. ------ St. Vincent, Grenada

Tinotoma Cam.
  1. rufotestacea Cam. ------ Grenada

Hoplandria Kr.
  1. heterodon Cam. ------ St. Vincent
  2. obliqua Cam. ------ St. Vincent
  3. smithi Cam. ------ Grenada
  4. terminata (Er.) ------ Puerto Rico
  5. Sp. indet. ------ Hispaniola

Phloeopora Er.
1. occidentalis Cam.------ Cuba, Hispaniola
2. producta Cam.------ Hispaniola
3. religata Er.------ Puerto Rico

Ocalea Er.
1. Sp. indet------ West Indies

Termitogaster Csy.
1. brevis Mann------ Trinidad, South America
2. emersoni Mann------ Trinidad, South America

Termitophya Wasm.
1. flaviventris Mann------ Trinidad, South America

Euthorax Sol.
1. pictipennis Kr.------ St. Vincent, Central America, North America

Ocyusa Kr.
1. granella Cam.------ Grenada

Aleochara Grav.
1. bimaculata Grav------ Hispaniola, South America, Central America, North America
    alticola Shp.
    duplicata Er.
2. cameroni B. & S------ St. Vincent, Grenada
    bugnioni Cam.
3. lateralis Er------ Cuba, South America
    bonariensis Lynch
4. nigrocoerulea Cam------ Jamaica
5. notula Er.------ Cuba to Mustique, South America, Central America, North America
    duplicata Lynch
    signaticollis F. & G.
6. puberula Klug------ Cuba, cosmopolitan
    analis MacL.
    armitagei Woll.
    brunnescens Mots.
    decorata Aubé
    deserta Er.
    dubia Fvl.
    major Eichelb.
    sanguinolenta Mots.
    vaga Er.
7. taeniata Er.------ Jamaica to Grenada, South America, Central America, North America
    lapidicola Sahlb.
    oxypodia Shp.
    simulatrix Shp.
8. verberans Er.------ Cuba, South America, Central America

COLLECTING STATIONS

1. Jamaica. July 3, 1935. Hope Gardens, just outside of Kingston on the north. A, On fragments of mango fruits; B, in dung in a large pasture; C, same as B (July 4, 1935); D, same as A (July 4, 1935); E, under bark of dead tree (July 5, 1935); F, sweeping in pasture (July 6, 1935); G, in termitarium (July 10, 1935).
2. Jamaica. July 3, 1935. Bridge over a side creek on hillside overlooking Mount Industry, 10 miles north by east of Kingston. A, under pebbles along stream; B, on surface of water (July 6, 1935).
3. Jamaica. July 5, 1935. River bottom of Hope River below Papine, at east end of Hope Gardens, Kingston. Under stones.
4. Jamaica. July 1935. No. 9, Norman Road, Kingston. Miscellaneous, at lights, etc.
5. Jamaica. July 10, 1935. About 3 miles west of Morant Bay, in a coconut walk. Under stones and logs in a coconut walk.
6. Jamaica. July 11, 1935. Caymanas Estates, 7 to 9 miles west of Kingston on Spanish Town Road. Sweeping and beating along Ferry and Cobre Rivers.
7. Jamaica. July 12, 1935. Eighteen miles north of Kingston on road to Annotto Bay. In fungus.
8. Jamaica. July 13, 1935. Along road overlooking seabeach 4 miles south of Manchioneal, in Portland Parish. Sweeping low shrubs along roadside.
9. Jamaica. July 13, 1935. Eight miles northwest of Manchioneal on the Spring Valley-Friendship Valley road, next to John Crow Mountains. A, Sweeping along road; B, under chips and bark of fresh stumps; C, on ground; D, beating and sweeping at night (July 23).
10. Jamaica. July 15, 1935. About 4 miles west of Stony Hill on road to Bog Walk. Sifting leaves in narrow damp ravine.
11. Jamaica. July 17, 1935. Road 1 mile east of Mavis Bank, near Yallahs River. On ground.
12. Jamaica. July 18, 1935. Between Ewarton and Moneague (5 miles south of Moneague) in parish of St. Ann. Under dung in open pasture.
13. Jamaica. July 18, 1935. One mile south of Moneague on Ewarton road. In dung along road.
14. Jamaica. July 18, 1935. Four miles northwest of Claremont in St. Ann. In fungus on a log.
15. Jamaica. July 18, 1935. About 5 miles east of Montego Bay, on beach. In wave rows.
16. Jamaica. July 19, 1935. Midway between Mocho and Catadupa in southern St. James parish. Along a mountain road in dense forest. A, under burro dung; B, sweeping and beating; C, at light and beating at night.
17. Jamaica. July 20, 1035. Ten miles west of Montego Bay on road to Lucea. Under dead bird.
18. Jamaica. July 20, 1935. Highway about 10 miles east of Mandeville. On ground.
19. Jamaica. July 27, 1935. Vicinity of Derry near Balaclava, north of Mandeville in Manchester parish. A, in rotten logs; B, under dead bark.

20. Jamaica. July 28, 1935. Six miles north of Bath in Parish of St. Thomas; in hills at upper limit of cultivation (bananas). In rotting logs, beating and sweeping, and in fungus (staphylinids).
21. Haiti. August 6, 1935. Road about midway between Fond Parisien and Fonds Verettes. In dung on road.
22. Haiti. August 7, 1935. Near top of pass on road between Fonds Verettes and Bodarie; a sparse pine forest at lower limit of pines with edge of jungle on one side. A, in dung along trail; B, rotting logs; C, beating along edge of jungle.
23. Haiti. August 11, 1935. Along trail to Furcy, 1½ miles south of (above) Kenskoff, south of Port-au-Prince. A, beating; B, in dung (August 23); C, sweeping and beating (August 23); D, on ground (August 23); E, in dung in open pasture (August 11).
24. Haiti. August 13, 1935. Vicinity of Trouin between Léogane and Jacmel. A, under stones along river; B, in dung along road.
25. Haiti. August 15, 1935. Fifteen miles south of St. Marc on main road to Port-au-Prince. In dung along road.
26. Haiti. August 15, 1935. Five miles south of St. Marc. In dung along road.
27. Haiti. August 20, 1935. Five miles south of Miragoane on road from Port-au-Prince to Les Cayes. A, in fungus; B, in dung; C, sweeping and beating.
28. Haiti. August 20, 1935. Just east of Grand Goave on road to Port-au-Prince. In dung and in spider web.
29. Haiti. August 25, 1935. One mile west of Petionville, on ridge known as Morne l'Hopital; elevation 2,500 feet. On ground.
30. Haiti. August 26, 1935. Fifteen miles northeast of Port-au-Prince on Cul-de-Sac Plaine. In manure.
31. Haiti. September 1, 1935. Near Mirebalais on road to Lascahobas. In dung along road.
32. Dominican Republic. September 5, 1935. Ten miles north of Santiago de los Caballeros on road to Puerto Plata. A, in rotten branch; B, in excrement.
33. Dominican Republic. September 5, 1935. Three miles west of Santiago on road to San José de las Matas. A, in dung in large pasture; B, on sweet-potato tubers; C, in banana trash.
34. Dominican Republic. September 6, 1935. Along road near town of Janico, about 15 miles southwest of Santiago. Manure along road.
35. Dominican Republic. September 7, 1935. About 5 miles northwest of Santiago on road to Monte Cristi (Carretera Duarte). A, under stones and sand along stream; B, in dung on sand.
36. Dominican Republic. September 8, 1935. Ten miles southeast of Puerto Plata at point where road emerges from mountains. In dung along road.
37. Dominican Republic. September 8, 1935. Three miles north of Santiago on road to Puerto Plata. In fungus.
38. Dominican Republic. September 9, 1935. Near San José de las Matas along road 20 miles southwest of Santiago. In dung along road.
39. Dominican Republic. September 10, 1935. Santiago de los Caballeros, province of Santiago. About hotel.
40. Dominican Republic. September 10, 1935. About 10 miles northeast of Moca on road to Jamao. In dung along road (and sweeping).
41. Dominican Republic. September 14, 1935. Vicinity of Boca Chica, about 22 miles east of Santo Domingo (Ciudad Trujillo). In dung (and spider web).

42. Dominican Republic. September 16, 1935. 57 Avenida Bolivar, Santo Domingo (Ciudad Trujillo). Flying to light.
43. Puerto Rico. September 28, 1935. Beach near San Juan. A, under seaweed; B, in dung in a small pasture behind beach; C, under dead shells.
44. Puerto Rico. September 29, 1935. West edge of San Juan Bay. In dung along marsh road.
45. Puerto Rico. September 30, 1935. Pasture along Rio Plata just below Toa Alta at highway bridge. In dung.
46. Puerto Rico. October 2, 1935. Pasture at edge of marshy Lake Cartagena, 3 miles east of Bokueron, 20 miles south of Mayagüez. A, in dung in marsh; B, beating a flowering tree.
47. Puerto Rico. October 3, 1935. About 13 miles north of Yauco, or the same distance east of Maricao, at elevation of 3,000 feet. A, in excrement; B, under rotten guava fruit.
48. Puerto Rico. October 4, 1935. Four miles southeast of Adjuntas, on hill at about 3,000 feet, and a hill along road from there to Jayuya. A, under bark of rotten stump; B, in fungus; C, in dung; D, same as C.
49. Puerto Rico. October 4, 1935. Four miles west of Adjuntas; elevation 3,000 feet. In dung.
50. Puerto Rico. October 5, 1935. Mayagüez; grounds of Agricultural Experiment Station. A, in dung; B, among rotten "fruit" of an imported palmlike tree; C, in rotting cocoa pods; D, flying.
51. Puerto Rico. October 7, 1935. Five miles west of Bayamon; a grapefruit packing plant. Under pile of rotting grapefruit refuse.
52. Puerto Rico. October 7, 1935. Two miles southwest of Bayamon. In dung in a grassy pasture.
53. Puerto Rico. October 7, 1935. Road between San Juan and Bayamon. Flying.
54. Puerto Rico. October 8, 1935. Five miles east of Humacao. In dung in a pasture.
55. Puerto Rico. October 8, 1935. Seven miles east of Humacao. Under seaweed on beach.
56. Puerto Rico. October 8, 1935. Fifteen miles northeast of Humacao. Under seaweed on beach.
57. Puerto Rico. October 8, 1935. Five miles west of Mameyes. In dung in a pasture.
58. Puerto Rico. October 9, 1935. El Yunque Peak; elevation about 2,000 feet. Under rubbish along stream.
59. Puerto Rico. October 10, 1935. Five miles southwest of Aibonito on road to Coamo. In dung in pasture.
60. Puerto Rico. October 10, 1935. Five miles west of Salinas on road from Ponce. In manure.
61. Puerto Rico. October 12, 1935. Near Matrullas, north of Villalba, on a Forest Service Road. A, in dung; B, in excrement; C, in bromeliad.
62. Puerto Rico. October 12, 1935. Kilometer 36 (from Manati) on road from Ciales to Villalba. In manure.
63. Puerto Rico. October 12, 1935. Five kilometers north of Ciales on road to Manati; edge of Rio Manati. Under pebbles and flying.
64. Puerto Rico. October 12, 1935. Kilometer 32 (from Manati), on road from Ciales to Villalba. Sifting dead leaves in a damp gully.
65. Puerto Rico. October 13, 1935. Vicinity of Olimpo Court Apartments, Santurce (San Juan). Miscellaneous.

66. St. Thomas. October 20, 1935. Cassi Hill, about 4 miles east of town of St. Thomas, near eastern end of island. In dung on road.

67. St. Thomas. October 21, 1935. One mile east of Charlotte Amalie. In dung in a pasture.

68. St. Thomas. October 21, 1935. At hotel in town. Flying to light.

69. Guadeloupe (Basse Terre) October 26, 1935, to November 9, 1935. Auberge de la Rivière Rouge at Matouba, 3 kilometers northeast of St. Claude; elevation 2,100 feet. Flying to light.

70. Guadeloupe (Basse Terre). October 27, 1935. Nine kilometers north of Basse Terre. In dung. (Also on plants.)

71. Guadeloupe (Basse Terre). October 27, 1935. Between Marigot and Bouillante, along main road. Sweeping.

72. Guadeloupe (Basse Terre). October 27, 1935. Three kilometers south of Pointe Noire. A., in rotting cocoa pods; B, in fungus.

73. Guadeloupe (Basse Terre). October 28, 1935. Same as station 69. Miscellaneous.

74. Guadeloupe (Basse Terre). October 29, 1935. About 1 kilometer northeast of Matouba; elevation 2,500 feet. A, in dung; B, in rotten logs.

75. Guadeloupe (Basse Terre). October 30, 1935. Two kilometers south of Capesterre on main road. In ox dung.

76. Guadeloupe (Basse Terre). October 30, 1935. Three kilometers south of Sainte Rose. Sweeping along road.

77. Guadeloupe (Basse Terre). October 30, 1935. Five kilometers west of Sainte Rose. A, under seaweed on beach; B, in ox dung in a pasture.

78. Guadeloupe (Basse Terre). October 31, 1935. One kilometer east of Matouba; elevation 2,200 feet. A, in excrement; B, in dung; C, under rotten parts of a banana flower.

79. Guadeloupe (Basse Terre) November 2, 1935. One kilometer south of Matouba; elevation 2,000 feet. A, in excrement; B, beneath fragments of mango fruit; C, as B (November 4).

80. Guadeloupe (Basse Terre). November 2, 1935. Three kilometers (5 by trail) northeast of St. Claude on trail to La Soufrière; elevation 3,500 feet. Flying and sweeping.

81. Guadeloupe (Basse Terre). November 6, 1935. Two kilometers northeast of Matouba, on ridge at left side of southern branch of Rivière Rouge; elevation about 2,400 feet. Sifting leaves along trail. (And flying.)

82. Guadeloupe (Basse Terre). November 7, 1935. Same as station 78. In excrement.

83. Guadeloupe (Basse Terre). November 7, 1935. Three kilometers east of Matouba; elevation 2,400 feet. In dung.

84. Guadeloupe (Basse Terre). November 8, 1935. One kilometer northeast of Matouba; across valley from station 78; elevation 2,200 feet. In logs.

85. Guadeloupe (Basse Terre). November 9, 1935. Five kilometers north of Capesterre along road to Pointe-a-Pitre. In small fungi.

86. Guadeloupe (Grande Terre). November 14, 1935. Eight kilometers west of Le Moule (21 kilometers northeast of Pointe-a-Pitre). In dung in a pasture.

87. Guadeloupe (Grande Terre). November 14, 1935. Five kilometers west of Le Moule (24 kilometers northeast of Pointe-a-Pitre). In dung in a pasture. (Also in a termitarium.)

88. Guadeloupe (Grande Terre). November 14, 1935. Two kilometers west of Le Moule (27 kilometers northeast of Pointe-a-Pitre). Under drift on beach.

89. GUADELOUPE (Grande Terre). November 14, 1935. One and one-half kilometers west of Le Moule (28 kilometers northeast of Pointe-a-Pitre). In dung in a pasture.
90. GUADELOUPE (Grande Terre). November 14, 1935. Two kilometers west of Ste. Anne (19 kilometers east of Pointe-a-Pitre). A, under rotting fruit; B, in dung.
91. GUADELOUPE (Grande Terre). November 15, 1935. Hotel des Antilles, Pointe-a-Pitre. Miscellaneous.
92. TRINIDAD. November 24, 1935. Adamson residence on grounds of Imperial College of Tropical Agriculture at St. Augustine. At light.
93. TRINIDAD. November 24, 1935. Port of Spain. In chicken feed.
94. TRINIDAD. November 24, 1935, to January 6, 1936. 109 Abercromby Street, Port of Spain. At light and miscellaneous.
95. TRINIDAD. November 24, 1935. Vicinity Coco on the Western Main Road about 5 miles west of Port of Spain. Flying.
96. TRINIDAD. December 15, 1935. Five miles northeast of Sangre Grande on the road to Toco. Under bark of fallen Mora log.
97. TRINIDAD. December 15, 1935. Twenty-two miles northeast of Sangre Grande on road to Toco (at Balandra Bay). Under seaweed on beach.
98. TRINIDAD. December 15, 1935. One mile west of Sans Souci, on north coast. A, fungus; B, in rotten cocoa pods; C, flying.
99. TRINIDAD. December 15, 1935. Fourteen miles northeast of Sangre Grande on road to Toco. In fungus.
100. TRINIDAD. December 15, 1935. One mile east of Sangre Grande on road to Toco. A, in rotten cocoa pods; B, flying (between this station and Sans Souci).
101. TRINIDAD. December 17, 1935. About 1 mile northeast of Port of Spain on St. Anns River road. Flying.
102. TRINIDAD. December 18, 1935. One-half mile from Manzanilla junction on the Plum Road. In rotten cocoa pods.
103. TRINIDAD. December 18, 1935. About 5 miles south-southwest of Manzanilla junction on the Plum Mitan Road. A, in rotting cocoa pods; B, in fungus.
104. TRINIDAD. December 18, 1935. Five miles west-southwest of Manzanilla junction on the Plum Road (3 miles north-northwest of Station 103). A, in rotting cocoa pods; B, in rotten logs; C, under bark.
105. TRINIDAD. December 18, 1935. Road between Manzanilla and Arima. Flying.
106. TRINIDAD. December 19, 1935. Edge of pitch lake at La Brea, about 15 miles west of San Fernando. A, under excrement; B, in dung.
107. TRINIDAD. December 22, 1935. About 2 miles north of Tacarigua along Tacarigua River; about 4 miles northeast of St. Augustine. A, under stones along edge of stream; B, underside of stones in stream; C, under moss and dirt on a rock.
108. TRINIDAD. December 22, 1935. Along river road 10 miles north of Arima. Flying.
109. TRINIDAD. December 27, 1935. River Estate, near Diego Martin, about 8 miles northwest of Port of Spain. A, in a fungus; B, under bark of immortelle.
110. TRINIDAD. December 28, 1935. Same as station 109. Dung.
111. TRINIDAD. December 31, 1935. Herrera Estate near Basse Terre on road from Princes Town to Moruga. In rotting cocoa pods.
112. TRINIDAD. December 31, 1935. Same as station 111. A, under bark of immortelle; B, in rotten wood of immortelle logs.

113. TRINIDAD. December 31, 1935. Same as station 111. In fungus.
114. TRINIDAD. December 31, 1935. Same as station 111. Flying.
115. TRINIDAD. December 31, 1935. Road between St. Joseph and Port of Spain. Flying.
116. TOBAGO. January 1, 1936. Nine miles northeast of Scarborough on Windward Road, in vicinity of village of Pembroke. A, in fungus; B, in rotting cocoa pods.
117. TOBAGO. January 1, 1936. Thirteen and one-half miles northeast of Scarborough on Windward Road, between Pembroke and Roxborough. A, in dung; B, in fungus.
118. TOBAGO. January 1, 1936. Twenty-three miles northeast of Scarborough on Windward Road; Speyside or Pigeon Hill. Flying.
119. TOBAGO. January 1, 1936. One mile west of Roxborough on the Windward Road at bridge over Argyle River. Under stones along edge of stream.
120. TOBAGO. January 1, 1936. Three miles southwest of Scarborough along the seashore. Under seaweed on beach.
121. TOBAGO. January 1, 1936. Three-quarters mile north of junction of Canaan road with road to Plymouth. In manure.
122. TOBAGO. January 1, 1936. Two miles southeast of Plymouth, or about 3 miles northwest of Scarborough. In manure.
123. TOBAGO. January 1, 1936. Department of Agriculture Stock Farm, 2 miles west of Scarborough. In dung and manure.
124. TRINIDAD. January 4, 1936. About 1 mile west of Arima along Eastern Main Road. In nest of *Nasutitermes* sp.
125. TRINIDAD. January 4, 1936. Two miles east of Valencia, or 8 miles east of Arima, on the side road. In nest of *Nasutitermes* sp.
126. TRINIDAD. January 4, 1936. Along the "5-mile stretch" on Eastern Main Road, near milepost 24 (from Port of Spain) and about 5 miles northwest of Sangre Grande. In nest of *Nasutitermes* sp.
127. TRINIDAD. January 4, 1936. Three-fourths mile from station 126, and about 4 miles from Sangre Grande on same road (milepost 24¾ from Port of Spain). In nest of *Nasutitermes* sp.
128. TRINIDAD. January 4, 1936. Two miles from station 127 and about 2 miles from Sangre Grande on same road (milepost 26½ from Port of Spain). In nest of *Nasutitermes* sp.
129. TOBAGO. January 1, 1936. On board S. S. *Tobago* off Scarborough. Flying at night.
130. TRINIDAD. January 5, 1936. Department of Agriculture Stock Farm at St. Joseph, 6 miles east of Port of Spain. In dung.
131. GRENADA. January 10, 1936. Two miles west of town of Grand Anse; on peninsula of Pt. Saline. In dung.
132. GRENADA. January 12, 1936. Milepost 6½ east of St. Georges on main road, parish of St. David. In rotting cocoa pods.
133. GRENADA. January 12, 1936. Eleven and one-half miles north of St. Georges, or half a mile south of Gouyave on coast road. In fungus.
134. GRENADA. January 13, 1936. Three miles west of Grenville on road to Grand Étang. In rotten cocoa pods.
135. GRENADA. January 13, 1936. One mile north of Grenville, at milepost 23 (from St. Georges). In fungus.
136. GRENADA. January 13, 1936. Three miles north of Grenville, at milepost 25 (from St. Georges). In fungus.
137. GRENADA. January 13, 1936. One mile south of Sauteurs, at northern end of the island. In rotting cocoa pods.

138. Grenada. January 13, 1936. Six miles north of Gouyave, at milepost 18 (from St. Georges) on west coast road. In dung on road.
139. Grenada. January 13, 1936. Nine miles north of St. Georges on coast road. In dung.
140. Grenada. January 15, 1936. Near village of Westerhall on south coast, about 6 miles southeast of St. Georges. In dung (and termites).
141. Carriacou. January 16, 1936. Botanic gardens at Hillsborough. Miscellaneous on plants.
142. Carriacou. January 16, 1936. Belle Air Estate near Belle Vue Hospital, about 2 miles northeast of Hillsborough. Flying at night.
143. Carriacou. January 17, 1936. Near Mount Pleasant on the eastern coast of Carriacou. A, under seaweed on beach; B, in dung. (Also termites.)
144. Carriacou. January 17, 1936. Near Limlair on the northeastern coast. A, in sheep dung; B, in cattle dung; C, under seaweed on beach.
145. Carriacou. January 17, 1936. Near Windward on the northern coast of Carriacou. In nest of parasol ants.
146. Carriacou. January 17, 1936. Near Craigston on the northwest coast. In refuse from a lime press.
147. Carriacou. January 17, 1936. Near Harveydale on southwest coast. In dung.
148. Carriacou. January 17, 1936. Belmont School at southwest end of island. In nest of *Nasutitermes* sp.
149. Carriacou. January 17, 1936. Cistern Peninsula, extreme west end of of island. Scales on logwood and *Pisonia subcordata*.
150. Grenada. January 20, 1936. Three miles west of town of Grand Anse; near tip of Point Saline Peninsula. In dung.
151. Grenada. January 21, 1936. One mile northeast of Grenville on Telescope Peninsula. In dung.
152. Grenada. January 21, 1936. Milepost 16 (from St. Georges) on road to Grenville. In fungus.
153. Grenada. January 21, 1936. Milepost 10½ (from St. Georges) on road to Grenville. A, in fresh cocoa pods; B, in rotting cocoa pods.
154. Grenada. January 24, 1936. About 4 miles west of Grenville on road to Gouyave. Sifting rubbish under ledge.
155. Grenada. January 24, 1936. About 6 miles southeast of Gouyave on road to Grenville. Under stones along stream.
156. Grenada. January 24, 1936. About 5 miles southeast of Gouyave on road to Grenville; at top of the pass. In dung.
157. Grenada. January 24, 1936. About 4 miles southeast of Gouyave on road to Grenville. A, in fungus; B, under stones at edge of stream.
158. Grenada. January 24, 1936. About 3½ miles southeast of Gouyave on road to Grenville. In fungus.
159. Grenada. January 24, 1936. About 3 miles southeast of Gouyave on road to Grenville. In fungus.
160. Grenada. January 26, 1936. About 7 miles north of Grenville, just beneath Lake Antoine. Under rubbish and seaweed on beach.
161. Grenada. January 26, 1936. One-half mile northwest of station 160. In dung. (Also termites.)
162. Grenada. January 26, 1936. One-half mile south of Grenville. A, under seaweed on beach; B, in excrement.
163. Grenada. January 26, 1936. One and one-half miles south of Grenville. Under seaweed on beach.

164. St. Vincent. February 4, 1936. Sandy Beach, 3 miles north of Orange Hill Estate, on northeast coast, about 8 miles north of Georgetown. In dung. (Also on beach.)

165. St. Vincent. February 6, 1936. Hillside overlooking Pembroke Estate in Buccament Valley, about 5 miles north of Kingstown. In dung.

166. St. Vincent. February 6, 1936. Near highway bridge over Buccament River, about 6 miles north of Kingstown. Under stones along stream.

167. St. Vincent. February 7, 1936. Four miles from main road at Greathead Bay on Vigie Road, county of St. George. In dung.

168. St. Vincent. February 8, 1936. Three miles southeast of Kingstown, near Calliaqua on southern coast. In dung.

169. St. Vincent. February 9, 1936. On hillside overlooking Station 165, near Pembroke Estate on the Buccament River. In nests of ants and termites

170. St. Vincent. February 10, 1936. Yambu River on the southeast corner of the island, half a mile above the mouth. A, under stones on a gravel bar; B, in dung in a pasture.

171. St. Vincent. February 11, 1936. Two miles north of Mesopotamia in valley of Yambu River, parish of St. George. In dung.

172. St. Vincent. February 11, 1936. Along Greathead River, about 2½ miles southeast of Kingstown. In dung in a large pasture.

173. St. Vincent. February 13, 1936. One mile northeast of Layou Village, about 3 miles south of Barrouallie, on Leeward Road. In road.

174. St. Vincent. February 13, 1936. Two miles northeast of Barrouallie, along Wallilabou River, about a mile above its mouth. Under stones along stream.

175. St. Vincent. February 13, 1936. Just south of village of Troumaka, about 2½ miles southwest of Chateaubelair on Leeward Road. In dung in road.

176. St. Vincent. February 15, 1936. Same as station 166; along Buccament River, A, under stones along edge of stream; B, in dung.

177. St. Vincent. February 15, 1936. Pembroke Estate in the Buccament Valley. Dead branches of mango trees.

178. St. Vincent. February 15, 1936. Four miles northwest of Kingstown on Leeward Road. In road.

179. St. Vincent. February 18, 1936. One and one-half miles up North River, northeast of Kingstown. In dung.

180. St. Vincent. February 18, 1936. About 1 mile north of Kingstown on Leeward Road. In dung (and flying).

181. St. Vincent. February 19, 1936. Milepost 8½ on the Windward Road, near southeast corner of the island. In dung.

182. St. Vincent. February 20, 1936. South rim of Soufrière; elevation about 3,900 feet. On ground.

183. St. Vincent. February 20, 1936. Two hundred feet below the southeast rim of Soufrière; half a mile east of station 182. Under matting of small plants and roots.

184. St. Vincent. February 20, 1936. Half a mile southeast of station 183, several hundred feet farther down the Soufrière. Under stones in dry creek channel.

185. St. Vincent. February 23, 1936. Three miles southeast of Kingstown, along main road, 1 mile west of Calliaqua. In dung in a large pasture. (Same as station 168.)

186. St. Vincent. February 25, 1936. Pelican Hotel, Kingstown. Miscellaneous flying about hotel.

187. Barbados. February 28, 1936. Bath Estate in parish of St. John on east coast. In dung.

188. Barbados. March 3, 1936. Highgate House, 2 miles east of Bridgetown. In dung.

189. Barbados. March 5, 1936. The Savannah, Bridgetown. In dung.

190. Barbados. March 5, 1936. A small narrow beach just south of Needham Point, Bridgetown. Under seaweed.

191. Barbados. March 6, 1936. Springhall Estate in parish of St. Lucy, about 2 miles northeast of St. Lucy's Church. Termitarium in canefield.

192. Barbados. March 8, 1936. Beach at Long Bay near Chancery Lane Swamps, near South Point. Under seaweed.

193. Barbados. March 11, 1936. Frizer's Estate in St. Joseph Parish, 1½ miles southwest of Bathsheba. A, under stones along Joes River; B, in dung.

194. Barbados. March 11, 1936. Grounds of Codrington College in eastern St. John Parish. In dung.

195. Barbados. March 12, 1936. Junction of Bathsheba road with highway No. 2, in St. Andrews Parish, at bridge. In dung.

196. Barbados. March 12, 1936. St. Andrews Church on highway No. 2 in central eastern St. Andrews Parish. In dung in a pasture.

197. Barbados. March 12, 1936. River Bay, on northeast coast of St. Lucy Parish. Under seaweed on beach (and in tide pools).

198. Barbados. March 14, 1936. Whitehall Estate in parish of St. Peter. A, along edge of small pond, in dung; B, on mud bank.

199. Barbados. March 14, 1936. The south fork of the Green River (near Greenland Estate) in parish of St. Andrews. In dung.

200. Barbados. March 14, 1936. Highway bridge over Walkers River, near St. Andrews Church, parish of St. Andrew. Under stones along stream.

201. Barbados. March 15, 1936. Farmers Stream in northern St. Thomas Parish; near Farmers Estate. A, in dung; B, along mud banks.

202. Barbados. March 15, 1936. Three-fourths of a mile north of station 195, a branch of same river. A, along edge of stream; B, in dung.

203. Barbados. March 15, 1936. One-fourth of a mile north of station 202. In dung.

204. Barbados. March 15, 1936. Lord's Castle on east coast of St. Philip Parish. Flying.

205. St. Lucia. March 27, 1936. Hotel St. Antoine, Castries. A, in fungus; B, flying to lights.

206. St. Lucia. March 28, 1936. About 1 mile north of Dennery on east coast. In dung in small pasture.

207. St. Lucia. March 29, 1936. Bridge over Millette River just above its junction with the Roseau River. A, inside a rotten coconut husk; B, in decaying banana stems; C, under stones and excrement along the stream.

208. St. Lucia. March 29, 1936. About 1 mile south of station 207; elevation 750 feet. A, in fungus; B, under bark of fallen log; C, termitarium. (Also flying.)

209. St. Lucia. March 29, 1936. The Roseau River at elevation of 250 feet; at its union with a small branch from the right. A, under stones and sand along the stream; B (halfway between this and station 208), in fungus.

210. St. Lucia. March 31, 1936. One mile south of Micoud on east coast or half a mile south of Troumassee River on main road. Under dung in large pasture.
211. St. Lucia. April 3, 1936. Same as station 207. A, under stones and sand along edge of stream; B, in dung; C, in rotten cocoa pods; D, in a rotting banana stem.
212. St. Lucia. April 3, 1936. Anse La Raye, 8 miles southwest of Castries. In dung.
213. St. Lucia. April 7, 1936. 1 mile south of Gros Islet or about 4 miles north of Castries on Leeward Road. In dung.
214. St. Lucia. April 10, 1936. On Millette Ridge about half a mile south of Dame Millette or 1½ miles south of Millette Bridge. In fungus.
215. St. Lucia. April 10, 1936. One-fourth mile south of station 214, on same ridge. Under leaves and rubbish.
216. St. Lucia. April 10, 1936. Half a mile east of station 214, on a side ridge. Around campfire.
217. St. Lucia. April 11, 1936. One-fourth mile south of Dame Millette (and station 208) at about the same elevation (750 feet). In fungus.
218. St. Lucia. April 17, 1936. Half a mile south of station 215 on same ridge. Termitarium.
219. St. Lucia. April 17, 1936. One-fourth mile south of station 218 on same ridge. Flying.
220. St. Lucia. April 21, 1936. Du Boulay Estate at St. Remy, 3 miles southeast of Soufrière. A, flying to light at night (April 21 to May 13); B, on rotting grapefruit (April 23); C, same as B (April 23); D, in very old cocoa pods (April 25); E, under chips of fresh stumps of breadfruit trees (May 6); F, flying near E (May 6); G, same as E May 8); H, under chips of stumps and in rotten wood of logs of breadfruit trees (May 12); J, in very old cocoa pods (May 12); K, in fungus.
221. St. Lucia. April 22, 1936. Half a mile northeast of St. Remy on the road to Soufrière. In rotting cocoa pods.
222. Grenada. January 1936. Home Hotel, St. Georges. Miscellaneous.
223. Grenada. January 1936. Half a mile east of St. Georges; elevation 600 feet. Flying.
224. St. Lucia. April 25, 1936. Belleplaine Estate, 4½ miles southeast of Soufrière. In freshly cut cocoa pods.
225. St. Lucia. April 27, 1936. Half a mile southwest of St. Remy, across a branch of the Ivrogne River. In dung.
226. St. Lucia. April 28, 1936. One-fourth mile northeast of St. Remy. In rotting cocoa pods.
227. St. Lucia. April 28, 1936. One-fourth mile north of station 221, or three-fourths mile north of St. Remy on main road. In freshly cut cocoa pods.
227½. St. Lucia. May 5, 1936. Along the Soufrière River about 2 miles up from Soufrière. In old coconut husks.
228. St. Lucia. May 5, 1936. One-fourth mile southwest of station 227½, on hill over the river. In dung.
229. St. Lucia. May 5, 1936. 1 mile southwest of Soufrière, along main road. Flying.
230. St. Lucia. May 8, 1936. Same as station 221. In rotting cocoa pods.
231. St. Lucia. May 9, 1936. Between stations 221 and 227. In rotting cocoa pods.

232. St. Lucia. May 15, 1936. Beach at town of Dennery, on windward coast. Under seaweed.

233. St. Lucia. May 15, 1936. Fond d'Or River at highway bridge. Under sticks on mudbank.

234. St. Lucia. May 15, 1936. Same as station 205. At light at night in hotel.

235. Dominica. May 25, 1936. Hillsboro Estate, near mouth of Layou River, just south of St. Joseph. A, in very old cocoa pods; B, in freshly cut pods.

236. Dominica. May 29, 1936. One-quarter mile north of Boery River, at its mouth. In dung.

237. Dominica. June 2, 1936. Hillsboro Estate, at mouth of Layou River. Same as station 235. In cocoa pods.

238. Dominica. June 4, 1936. About 1 mile southwest of Sylvania Estate on the Imperial Road. In dung.

239. Dominica. June 4, 1936. About 1 mile north of Sylvania Estate on the Imperial Road. In fungus.

240. Dominica. June 4, 1936. Sylvania Estate, along the Imperial Road. In dung in a large pasture.

240½. Dominica. June 11, 1936. Mouth of the Layou River. B, under seaweed on the beach; C, in fungus; D, on sandy bank at edge of lagoon; E, in dung.

241. Dominica. June 11, 1936. Near Clarke Hall Estate on Layou River, about 2 miles above its mouth. In very old cocoa pods.

242. Dominica. June 12, 1936. In lime groves on north bank of Roseau River, just east of Roseau. Flying.

243. Dominica. June 12, 1936. Along road south of Roseau River half a mile south of station 242. From pods of an *Acacia*-like tree.

244. Dominica. June 17, 1936. Two and one-half miles east of Roseau in the Roseau Valley. A, sifting fallen leaves; B, in and under excrement.

245. Dominica. June 17, 1936. Two miles east of Roseau; half a mile west of station 244. In dung.

246. Dominica. June 19, 1936. Same as station 235. A, in very old cocoa pods; B, in dry dung.

247. Dominica. June 19, 1936. One and one-half miles west of station 241, in Layou River Valley. On fresh mango fragments.

248. Dominica. June 19, 1936. Same as station 240½; at mouth of Layou River. A, in fresh chips on coconut husks; B, in dead palm log; C, in dung.

249. Dominica. June 21, 1936. Lisdarra Estate, 1 mile east of Belleview on the Grand Bay Road. In roses.

250. Dominica. June 24, 1936. West end of Morne Bruce, overlooking Roseau. In dung.

251. Dominica. June 25, 1936. East end of top of Morne Bruce, above Roseau. Flying at dusk.

252. Dominica. June 26, 1936. Same as station 236; one-quarter of a mile north of Boery River. Flying at dusk.

253. Dominica. July 2, 1936. North end of Morne Bruce (practically same as station 251). Sweeping.

254. Dominica. July 4, 1936. One and one-half miles east of Roseau, along Roseau River. A, at edge of stream. B, in dung.

255. Dominica. July 7, 1936. Beach at Woodford Hill Estate, on northeast coast. Under seaweed.

256. Dominica. July 7, 1936. Eden Estate, along main road, on northeast coast. In freshly cut banana stems.

257. Dominica. July 7, 1936. Near the works of Londonderry Estate, on northeast coast. A, in refuse from a lime press; B, in dung; C, flying at dusk.

258. Dominica. July 8, 1936. Same as station 257. In dung.

259. Dominica. July 8, 1936. Home of Mr. Forbes, 1 mile south of Portsmouth on Prince Rupert Bay. At light.

260. Dominica. July 8, 1936. Portsmouth. At light.

261. Dominica. June 1936. Roseau. Miscellaneous, mostly flying to light.

262. Montserrat. July 15, 1936. Six miles south of Plymouth, on the coast; a small stream about half a mile west of O'Garra's Estate. In dung.

263. Montserrat. July 17, 1936. Vicinity of Woodlands, about 6 miles north of Plymouth, along main road. In dung along road.

264. Montserrat. July 19, 1936. Trants Bay on windward coast. In dung in large pasture.

265. Montserrat. July 20, 1936. Along Balham River, 3 miles north of Plymouth; below main road. A, under stones at edge of stream; B, in dung.

266. Montserrat. July 20, 1936. One mile north of Plymouth, near Botanical Gardens. Under rotten log.

267. Montserrat. July 22, 1936. Half a mile northwest of Plymouth; half a mile west of station 266. A, under rubbish on the beach; B, in dung in a pasture.

268. Montserrat. July 24, 1936. Beach at Trants Bay, quarter of mile east of station 264. Under seaweed (and in a convolvulus flower).

269. Montserrat. July 24, 1936. Beach at Farm Estate, three-fourths mile south of Trants Bay. Under seaweed and drift.

270. Montserrat. July 24, 1936. Same as station 262. In dung.

271. Montserrat. July 25, 1936. Coconut Hill Hotel, Plymouth. About lights at night.

272. Antigua. August 4, 1936. Beach on south side of point at The Fort, 2 miles northwest of St. Johns. Under seaweed.

273. Antigua. August 8, 1936. An open hillside about 1 mile south of Parham in parish of St. Peter. In dung.

274. Antigua. August 8, 1936. Parish of St. Mary about 6 miles south of St. Johns (2 miles south of St. Lukes). In fungus (and in a coconut husk).

275. Antigua. August 14, 1936. Half a mile east of St. John; near the Botanic Gardens. A, in dung; B, in a pile of decaying cut grass.

276. Antigua. August 15, 1936. About 5 miles northeast of St. Johns; High Point, a beach on Parham Sound. Under seaweed.

277. Antigua. August 17, 1936. About 7 miles southwest of St. Johns, near Frys Point on the west coast. A, in fungus; B, under seaweed on beach; C, under excrement.

278. Antigua. August 18, 1936. About 4 miles north-northeast of St. Johns, near Hodge Point, in parish of St. John. Under dung and grass roots.

279. Antigua. August 19, 1936. A stream near Belfast Bay, 1 mile west of St. Stephens Church, on boundary between parishes of St. Peter and St. Philip. A, on wet clay at edge of stream; B, under excrement.

280. Antigua. August 23, 1936. Same as station 277. A, under rotting genip (*Melicocca bijuga* L.) fruit; B, in dung. (Also termites.)

281. Antigua. August 26, 1936. One mile south of village of All Saints (which is 5½ miles south of St. Johns). A, in dung; B, under excrement.

282. Antigua. August 28, 1936. The Blockhouse on Shirley Heights, overlooking English Harbor on south coast. Under stones.

283. Antigua. August 29, 1936. The Racetrack, 2 miles east of St. Johns. In dung.

284. Antigua. August 30, 1936. Vicinity of Table Hill, about 3 miles (by road) west of St. Johns (Five Islands Estate). In dung.

285. Antigua. September 2, 1936. About 2 miles west of St. Marys Church and Old Road, on south coast of parish of St. Mary. A, in dung; B, in manure.

286. Antigua. September 5, 1936. Beach 2 miles north of St. Johns; 1 mile northeast of Fort James. Under seaweed.

287. Antigua. September 8, 1936. Near a ford on a small stream close to the adjoining corners of the three parishes of St. Peter, St. Paul, and St. Philip. In dung (also at the edge of the stream).

288. Antigua. September 17, 1936. Same as station 277. A, in fungus; B, under excrement.

289. Antigua. September 21, 1936. Fort James Beach, 2 miles northwest of St. Johns. Flying.

290. Antigua. September 21, 1936 Same as station 285. In dung. (Specimens recorded as station 290 Excrement belong under station 291.)

291. Antigua. September 21, 1936. One mile south of station 277. Under excrement.

292. Antigua. September 24, 1936. Near Little Bay, Five Islands Estate. In dung.

293. Antigua. September 24, 1936. Little Bay Beach; Five Islands Estate. Under rubbish on beach.

294. Antigua. September 24, 1936. Five Islands Estate House. In dung.

295. Antigua. September 1936. St. Johns. Miscellaneous, especially flying about hotel.

296. St. Kitts. October 5, 1936. Roadside overlooking Lodge Gut, on boundary between parishes of St. Mary and Christ Church. In dung.

297. St. Kitts. October 6, 1936. Pasture at Frigate Bay Estate, parish of St. George. In dung.

298. St. Kitts. October 6, 1936. Eastern end of North Frigate Bay, practically same as station 297, but in parish of St. Peter. Under seaweed.

299. St. Kitts. October 7, 1936. Key Gut, on windward road, boundary of parishes of St. Mary and St. Peter. In dung.

300. St. Kitts. October 8, 1936. Same as station 297. In dung .

301. St. Kitts. October 9, 1936. Beach at Caines Estate, just east of Dieppe Bay, parish of St. John. Under seaweed.

302. St. Kitts. October 10, 1936. Corral at Frigate Bay Estate, virtually the same as station 297 and 300. In dung.

303. St. Kitts. October 11, 1936. Same as stations 297 and 300. In brush above beach.

304. St. Kitts. October 15, 1936. Hillside between Mardenbrough and Olivees Estates, 2 miles northwest of Basse Terre. In dung.

305. St. Kitts. October 16, 1936. Same as stations 297, 300, and 303. In dung.

306. St. Kitts. October 17, 1936. Same as station 299. In dung.

307. St. Kitts. October 19, 1936. North Frigate Bay Beach, parish of St. Peter. Under seaweed.

308. St. Kitts. October 19, 1936. Basse Terre. Miscellaneous under street lights and in hotel.

309. St. Kitts. October 20, 1936. Jack-in-the-Box district near Greenhill Estate, parish of St. Mary. Under a broken breadfruit.

310. St. Kitts. October 23, 1936. Half a mile south of Cayon Village, parish of St. Mary. Under excrement.

311. St. Kitts. October 23, 1936. Cocoa grove at Greenhill Estate, 1 mile south of Cayon Village, parish of St. Mary. In old cocoa pods and along stream.

312. St. Kitts. October 24, 1936. Same as stations 299 and 306. In dung.
313. St. Kitts. October 25, 1936. One mile southeast of Belmont Estate, parish of St. Paul. On ground.
314. St. Kitts. October 25, 1936. Two miles southeast of Belmont Estate, probably in parish of St. Paul; elevation 1,500 feet. Under fallen log.
315. St. Croix. October 30, 1936. One mile northeast of Sprat Hall. Under stones along stream.
316. St. Croix. October 30, 1936. Pleasant Valley in northwest section of island. A, in fresh fungi; B, under bark on fencepost.
317. St. Croix. November 1, 1936. Butler Bay Estate, two and one-half miles north of Frederiksted. In dung.
318. St. Croix. November 6, 1936. Mouth of Caledonia River, at Ham Bay. Under bark of living tree.
319. St. Croix. November 6, 1936. Ham Bluff, northwest corner of island. Under rubbish on sand.
320. St. Croix. November 6, 1936. Half a mile east of Canegarden Estate; 3 miles south of Christiansted, near south coast. On ground.
321. St. Croix. November 7, 1936. A short distance above the locality called Parasol (on U.S.C. and G.S. map) on western road through mountains to north coast. In dung.
322. St. Croix. November 7, 1936. Beach at Cane Bay. Under drift on beach.
323. St. Croix. November 8, 1936. Caledonia Valley, about 1 mile east of Ham Bay. Spider web.
324. St. Croix. November 10, 1936. Vicinity of Whites Bay, Southwest Cape. In flowers.
325. St. Croix. November 10, 1936. Half a mile east of station 324; one-half mile south of Hannah's Rest Estate. In dung and manure.
326. St. Croix. November 11, 1936. Beach at Chenay Bay, near Southgate Pond, 3 miles northeast of Christiansted. Under seaweed.
327. St. Croix. November 11, 1936. Southgate Estate, about 3 miles east of Christiansted. In dung.
328. St. Croix. November 12, 1936. One-quarter mile north of Great Pond; 4 miles southwest of Christiansted. In dung.
329. St. Croix. November 12, 1936. Beach at Great Pond Bay; one-half mile south of station 328. Under seaweed.
330. St. Croix. November 14, 1936. Same as station 317. In dung and manure.
331. St. Croix. November 16, 1936. Petronella Estate, 1 mile east of Great Pond. In dung in a corral.
332. St. Croix. November 17, 1936. Wheel of Fortune Estate, one-half mile east of Frederiksted. In bat guano.
333. St. Croix. November 17, 1936. Area immediately south of Frederiksted. Flying at dusk.
334. St. Croix. November 20, 1936. One mile southeast of Frederiksted; between Concordia and Wheel of Fortune Estate. In road.
335. St. Croix. November 22, 1936. Vicinity of Betsy's Jewel Estate, 1½ miles north of Bethlehem Estate. A, spider web; B, in dung; C, flying at dusk.
336. St. Croix. November 22, 1936. South Coast about 2 miles west of Krause Lagoon. Under seaweed on beach.
337. St. Croix. November 22, 1936. Roadway near Anguilla Estate, half a mile northeast of Krause Lagoon. In fungus.
338. St. Croix. November 1–30, 1936. Frederiksted. Flying to light in hotel, etc.
339. St. Croix. November 29, 1936. West side of Sugar Bay. In dung in roadway.

340. St. Croix. November 29, 1936. Beach at Greig Hill, west of Sugar Bay. Under seaweed.

341. St. Croix. November 29, 1936. Roadways of St. Croix from Sugar Bay to Frederiksted. Flying at dusk.

342. St. Croix. November 30, 1936. Byroads south and southeast of Frederiksted. Flying at dusk.

343. St. Croix. November 30, 1936. Eastern end of Westend Salt Pond; 2 miles south of Frederiksted. Sweeping.

344. St. Croix. December 1, 1936. Roads between Christiansted and Constitution Hill Estate. Flying at dusk.

345. Puerto Rico. December 15, 1936. Same as station 45; a pasture along the Rio Plata just below Toa Alta. In dung and manure.

346. Puerto Rico. December 17, 1936. About 10 kilometers south of Bayamon, on road to Naranjito junction. In dung.

347. Puerto Rico. December 18, 1936. Virtually same as station 58; El Yunque Peak, elevation 2,000 feet, near the foot of the peak trail. A, under wet chips on fresh stumps; B, under bark.

348. Puerto Rico. December 18, 1936. El Yunque Peak, elevation about 3,100 feet, along the main trail. A, under stones along stream; B, in fungus.

349. Puerto Rico. December 18, 1936. Luquillo Forest at base of El Yunque, at elevation of about 1,500 feet; on main road. Flying.

350. Puerto Rico. December 18, 1936. Half a mile south of Mameyes, in Luquillo National Forest area. In fungus.

351. Puerto Rico. December 22, 1936. Same as station 347 (and station 58); El Yunque Peak, 2,000 feet elevation. A, under wet rubbish on stumps; B, sweeping.

352. Puerto Rico. December 22, 1936. One kilometer south of the pass on El Yunque Road; about 16 kilometers south of Mameyes. Under dead bark.

353. Puerto Rico. December 24, 1936. About 10 kilometers south of Bayamon (by road). A, under stones along a stream; B, in dung.

354. Puerto Rico. January 5, 1937. A marshy pasture near kilometer 17 on road from San German to Guanica. In dung.

355. Puerto Rico. January 5, 1937. About the middle of the south side of Guanica Lake. A, on mud banks and under drift; B, in manure.

356. Puerto Rico. January 5, 1937. Half a mile east of station 355; south side of Guanica Lake. In dung.

357. Puerto Rico. January 5, 1937. Beach near mouth of Guanica Bay, west side. A, under seaweed; B, in dung.

358. Puerto Rico. January 6, 1937. About 1 mile east of Mayagüez, on the College Farm. A, in decaying grapefruit; B, under bark of dead logs; C, in fresh fungi.

359. Puerto Rico. January 6, 1937. College of Agriculture, Mayagüez. Flying to light at night.

360. Jamaica. January 29, 1937. Right bank of Ferry River, half a mile above highway (7 miles west of Kingston). A, in dung; B, in fungus.

361. Jamaica. January 29, 1937. Roads between Gordon Town and Half Way Tree, in vicinity of Hope Gardens, Kingston. Flying at dusk.

362. Jamaica. January 30, 1937. Just east of Annotto Bay along road to Port Antonio. Sweeping.

363. Jamaica. January 30, 1937. Near Hope Bay, on main road to Port Antonio. A, in fresh fungus; B, in dung.

364. Jamaica. January 30, 1937. Same as station 9; near Friendship Valley, 5 miles west of Manchioneal. Sweeping.

365. Jamaica. January 30, 1937. Same as station 8; 1 mile south of Manchioneal. Sweeping.
366. Jamaica. January 31, 1937. The Pagoda (elevation 2,000 feet) on ridge 1 mile south of Stony Hill. Flying at night.
367. Jamaica. February 1, 1937. Half a mile (by road) above Gordon Town on Mavis Bank road. Sweeping.
368. Jamaica. February 1, 1937. Two miles (by road) above Gordon Town on Mavis Bank road. A, sweeping; B, edge of stream.
369. Jamaica. February 2, 1937. Same as station 12; about 4 miles (by road) southeast of Moneague. A, in dung; B, in fungus; C, in decaying grapefruit.
370. Jamaica. February 2, 1937. About 2 miles north of Moneague on road to Ocho Rios. Under bark.
371. Jamaica. February 2, 1937. Fern Gully, between Moneague and Ocho Rios. Sifting rubbish.
372. Jamaica. February 2, 1937. Roaring River Falls, parish of St. Anns. Beating and sweeping.
373. Jamaica. February 2, 1937. Road between Roaring River and Fern Gully. Flying at dusk.
374. Jamaica. February 2, 1937. Road through Fern Gully. Flying at dusk.
375. Jamaica. February 2, 1937. Road between Fern Gully and Ewarton. Flying at dusk.
376. Jamaica. February 2, 1937. Road between Ewarton and Spanish Town. Flying at dusk.
377. Jamaica. February 2, 1937. Road between Spanish Town and Half Way Tree, Kingston. Flying at dusk.
378. Jamaica. February 3, 1937. Same as station 360. Under bark.
379. Jamaica. February 3, 1937. Rio Cobre at Cayamas Estates; 10 miles west of Kingston. Along sandy bank of stream.
380. Jamaica. February 3, 1937. Road between Sligoville and Spanish Town. Flying at dusk.
381. Jamaica. February 3, 1937. Pasture and brush at Hope Gardens, above Kingston. Flying, etc., at night.
382. Jamaica. February 4, 1937. A small stream, 12½ miles (by road) from Kingston on the Newcastle Road. A, in pools in stream; B, under bark.
383. Jamaica. February 4, 1937. A small stream, 12 miles (by road) from Kingston on the Newcastle Road. A, under fresh chips on stumps; B, in rotting banana stalk.
384. Jamaica. February 4, 1937. Mammee River, 1 mile above Papine and Hope Gardens. On submerged stones in the stream (and flying).
385. Jamaica. February 5, 1937. Pasture at northeast corner of Hope Gardens, Kingston. A, flying to lantern and sheet; B, flying in brush; C, under fresh chips on stumps; D, sweeping.
386. Jamaica. February 6, 1937. On coast 23 miles east of Kingston, near White Horses. A, from bark and chips of recently felled tropic birch tree; B, in flowers of a small tree; C, in flowers of acacia; D, under drift on the beach.
387. Jamaica. February 6, 1937. Near Bath in St. Thomas, at foot of Cuna Cuna Pass Trail. A, in fungus (*Hydnum* sp.); B, in rotting base of coconut leaf. (Also flying.)
388. Jamaica. February 6, 1937. Two miles by road from Bath in St. Thomas parish on the Cuna Cuna Pass road. A, colonial spider web; B, in cut banana stems.

389. Jamaica. February 6, 1937. One mile east of Bath in parish of St. Thomas; at bridge over Indian Cony River near junction with Plantain Garden River. A, on trunk of recently felled cotton tree; B, under chips and bark of chips of same tree.

390. Jamaica. February 6, 1937. Between Bath and Morant Bay. Flying at dusk.

391. Jamaica. February 6, 1937. Between Morant Bay and Kingston. Flying at dusk.

392. Jamaica. February 8, 1937. Same as station 389 (Bath in St. Thomas). A, on felled log of cotton tree; B, under bark of large chips; C, in dung; D, under stones in stream; E, under stones at edge of stream; F, in very rotten log; G, beating along edge of stream; H, flying at dusk.

393. Jamaica. February 9, 1937. Home of Mr. Nethersole on south side of Ram's Horn Ridge, three-quarter mile east of Stony Hill. Flying to light.

394. Jamaica. February 10, 1937. South side of Ram's Horn Ridge, half a mile east of Stony Hill. Flying to light.

395. Jamaica. February 10, 1937. Road between Stony Hill and Half Way Tree, Kingston. Flying at dusk.

396. Jamaica. February 10, 1937. About halfway between Stony Hill and Constant Springs, a small river flat. Flying at night.

397. Jamaica. February 13, 1937. Along trail just south of Derry Estate, 4 miles southeast of Balaclava, in parish of Manchester. A, in termitaria; B, in dung; C, under stones.

398. Jamaica. February 13, 1937. Half a mile northwest of Derry, near Balaclava. A, from mud at edge of pond; B, in termitarium; C, in very dry dung; D, same as C; E, in flowers of coffee plants; F (at Derry House), flying to light at night.

399. Jamaica. February 14, 1937. One Eye River (locally called Oxford River), 3 miles northeast of Balaclava, parish of Manchester; at highway bridge. A, under stones, logs, rubbish, and banana stems in shallow stream; B, sweeping; C, on sandy bank of stream; D, in dung.

400. Jamaica. February 14, 1937. Troy, on Hectors River in southern Trelawney Parish. Sweeping.

401. Jamaica. February 14, 1937. Half a mile north of Derry, along parochial road. Flying at night.

402. Jamaica. February 15, 1937. Breadnut Valley Estate, 2 miles south of Maggoty, in parish of St. Elizabeth. Under chips on a fresh stump.

403. Jamaica. February 15, 1937. Road between Newton crossroad and Derry by southern route through Balaclava. Flying at dusk.

404. Jamaica. February 16, 1937. Highway bridge over Jones River in northwestern St. Elizabeths Parish. Under stones in stream.

405. Jamaica. February 16, 1937. Highway bridge over Great River, 2 miles south of Catadupa in southern St. James Parish. Under stones in stream (also flying).

406. Jamaica. February 16, 1937. Same as station 16; halfway between Catadupa and Mocho. Sweeping.

407. Jamaica. February 16, 1937. Beach 2 miles north of Montego Bay. Under seaweed.

408. Jamaica. February 16, 1937. Roads between Falmouth and Jackson Town. Flying at dusk.

409. Jamaica. February 16, 1937. Roads between Jackson Town and Derry, Balaclava). Flying at dusk.

410. Jamaica. February 20, 1937. Beach at Alligator Pond Bay, southwest corner of Manchester Parish. A, in dung; B, beating sea-grape.
411. Jamaica. February 20, 1937. Road between Alligator Pond Bay and Kensworth (near Newport) via Cross Keys. Flying at dusk.
412. Jamaica. February 21, 1937. Kensworth Estate, 2 miles southeast of Newport (10 miles south of Mandeville by road), Manchester parish. A, in dung; B, flying to light at night.
413. Jamaica. February 22, 1937. Beach 1½ miles southeast of Black River on Black River Bay. A, beating sea-grape; B, under excrement.
414. Jamaica. February 23, 1937. Road between Mandeville and Toll Gate via Porus. Flying at dusk.
415. Jamaica. February 23, 1937. Road between Toll Gate and Kensworth Estate via Figurary Gully. Flying at dusk.
416. Jamaica. February 24, 1937. A roadside pond about 5 miles west of Black River (1½ miles southeast of Scotts Cove). On muddy bank of pond.
417. Jamaica. February 24, 1937. Scotts Cove (Seals Cove), 8 miles by road west of Black River. In tide pools.
418. Jamaica. February 24, 1937. Bluefields Bay, about 10 miles southeast across from Savanna-la-Mar. Under seaweed on beach.
419. Jamaica. February 24, 1937. Half a mile east of Speculation, about 3 miles northwest of Black River. In dung.
420. Jamaica. February 24, 1937. Half a mile west of Luana, about 3 miles north of Black River. In dung (and in spiderwebs).
421. Jamaica. February 24, 1937. Road between Luana and Kensworth, via Lacovia, Santa Cruz, and Spur Tree. Flying at dusk.
422. Jamaica. February 25, 1937. Roads in vicinity of Gutters (Crossroads) and between there and Alligator Pond. (On line between parishes of Manchester and St. Elizabeth.) Flying at dusk.
423. Jamaica. February 26, 1937. Highway 2 miles southeast of Porus, in Clarendon parish. Under chips on fresh stumps.
424. Jamaica. February 26, 1937. One mile east of May Pen on main road. A, from muddy bank of pond; B, sweeping; C, in pond.
425. Jamaica. February 26, 1937. Three miles east of May Pen on main road; pond under trees. A, on surface of pond; B, on muddy bank of pond; C, in manure.
426. Jamaica. February 28, 1937. Same as stations 389 and 392; near Bath in St. Thomas parish. A, on large fallen tree trunk; B, under bark of large chips; C, under rocks in stream; D, sweeping.
427. Jamaica. February 28, 1927. Clarkes River near Junction with Plantain Garden River, parish of St. Thomas. Under stones at edge of stream.
428. Jamaica. February 28, 1937. Roads between Bath and Lower White Horses, by way of Sunning Hill, Trinityville, and Cedar Hill. Flying at dusk.
429. Jamaica. March 2, 1937. Yallah's River at Easington Bridge. Under stones in stream.
430. Jamaica. March 2, 1937. Near Sunning Hill Farm on road from Bath to Trinityville (3 miles west of Bath in parish of St. Thomas). Flying at night.
431. Jamaica. March 2, 1937. One mile west of Bath in parish of St. Thomas, on road to Trinityville. In a small pond.
432. Jamaica. March 2, 1937. Banana River, 3 miles (by road) west of Cedar Valley on road to Easington. Under stones in stream.

433. Jamaica. March 2, 1937. Road between Bath and station 430. Flying at dusk.

434. Jamaica. March 4, 1937. Six miles northwest of Kingston on the Spanish Town road. Beneath dead dog.

435. Jamaica. February 2, 1937. Four miles north of Moneague on road to Fern Gully. Sweeping in grassy meadow.

444. Specimens received by gift from collectors in the West Indies.

A, Trinidad. January 1, 1936. Caura Valley. Collected and presented by Dr. A. M. Adamson.

B, St. Lucia. May 20, 1936. Cul-de-Sac. Among decomposing trash in canefields. Collected and presented by Dr. H. E. Box.

C, Antigua. May 1936. In trash heaps in canefields. Collected and presented by Dr. H. E. Box.

D, St. Lucia. April 2, 1936. Vieux Fort. In *Diatraea* tunnels in sugarcane. Collected and presented by Dr. H. E. Box.

E, Trinidad. December 31, 1935. San Rafael. Collected and presented by Dr. A. M. Adamson.

F, Trinidad. January 4, 1936. San Rafael. Collected and presented by Dr. A. M. Adamson.

G, St. Lucia. Various dates. Collected and presented by Dr. H. E. Box.

H, Antigua. March 4, 1937. McNish Ridge (900 feet elevation). Among ants on ground. Collected and presented by Dr. H. E. Box.

I, Antigua. December 28, 1936. Antigua Sugar Factory. Flying. Collected and presented by Dr. H. E. Box.

J, Antigua. November 29, 1936. Crosby's Estate. Among stones and seaweeds on sandy seashore. Collected and presented by Dr. H. E. Box.

K, Antigua. February 18, 1937. Crab Hill. In dung. Collected and presented by Dr. H. E. Box.

L, Antigua. March 15, 1937. Collins' Woods. In leaf mold and forest debris. Collected and presented by Dr. H. E. Box.

M, Antigua. April 21, 1937. Wallings Hill, in *Inga laurina* forest in mesophytic (volcanic) district. Among decaying forest debris. Collected and presented by Dr. H. E. Box.

N, Antigua. March 2, 1937. Upper Freeman. In *Polyporus* sp. Collected and presented by Dr. H. E. Box.

O, Antigua. April 21, 1937. Wallings Hill, in *Inga laurina* forest in mesophytic (volcanic) district. Among decaying forest debris. Collected and presented by Dr. H. E. Box.

P, Antigua. November 22, 1936. St. Philips Churchyard. In large moist agaric. Collected and presented by Dr. H. E. Box.

Q, Antigua. May 30, 1937. Near summit of Boggy Peak, about 1,300 feet elevation. From inside of scarlet bracts of a large *Heliconia* sp. in dense mesophytic woodlands on lee hilltop. Collected and presented by Dr. H. E. Box.

R, Antigua. March 15, 1937. Lyons Estate. In dung. Collected and presented by Dr. H. E. Box.

S, Antigua. March 20, 1937. Cades Bay. Among sand and debris by stream. Collected and presented by Dr. H. E. Box.

T, Antigua. March 9, 1937. Morris Looby's Estate. On sand by side of stream. Collected and presented by Dr. H. E. Box.

U, Antigua. March 13, 1937. Near Mill Hill. On riverside sand. Collected and presented by Dr. H. E. Box.

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ADDENDUM

INOPEPLINI

The genus treated under the name *Inopeplus* on page 138, above, was originally segregated and named as a new genus, the sole representative of a supposedly new subtribe of the reorganized subfamily Osoriinae. After the galley proofs had been returned to the printer, Dr. John Bowman, of Pittsburgh, drew my attention to the fact that *Inopeplus* of the Cucujidae possesses certain characters that indicate affinity with the Staphylinidae rather than with the Cucujidae. Upon examination I find that *Inopeplus* is unquestionably the same genus that I had described as new. I can find no characters to distinguish it from the Staphylinidae except the 4-segmented hind tarsus of the male. Although this character is unique among the Staphylinidae, it is by no means a great departure, since the staphylinids possess nearly every other possible variation in tarsal structure.

The larva of *I. praeustus* has been figured by Peyerimhoff. There is little question that the figure represents a cucujid larva, but there is some doubt of the identification of the larva with this species.

It appears likely to me that the genus is properly placed as above. I have therefore replaced my name for the genus with that of *Inopeplus*, leaving the diagnosis, key, and four new species unchanged. Inasmuch as three species of *Inopeplus* have been recorded from the the West Indies, there is some likelihood that one or more of my new species will be found to be synonyms. However, the specimens of *Inopeplus* in the Cucujidae collection of the United States National Museum represent three species, only one of them named, and come from islands other than those from which my specimens came. I can now merely point out the chance of synonymy and leave the seven names for later study.

The genus has previously been recorded from the West Indies as follows:

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